



FINAL – FY 2012

NASA OCIO Tactical Plan

Office of the Chief Information Officer

September 2011

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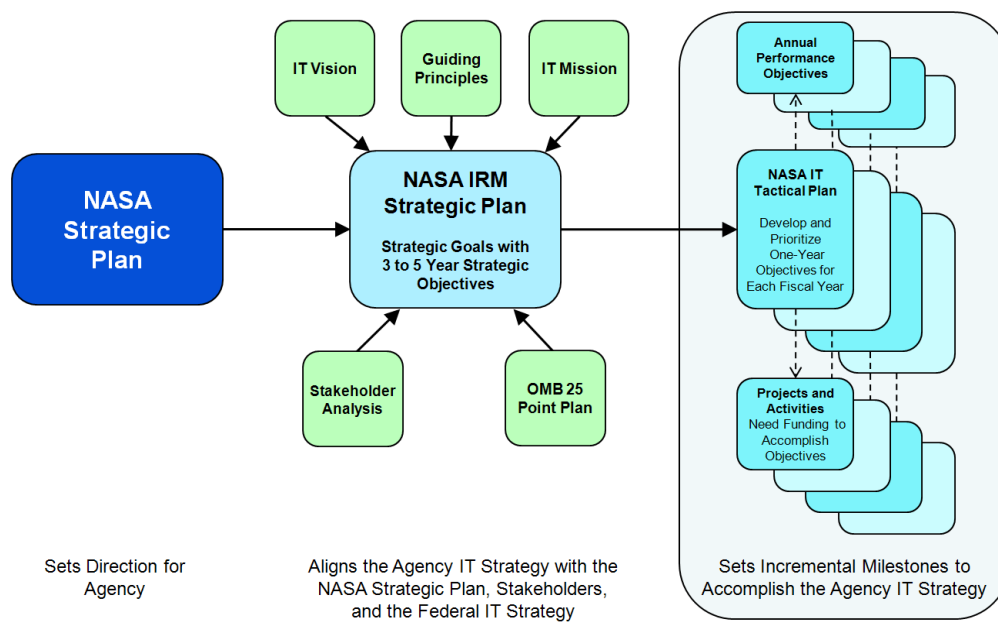
1. Plan Purpose

This document defines the Tactical Plan for the NASA Office of the Chief Information Officer (OCIO) for fiscal year (FY) 2012. This plan serves as the annual guide to implementing tactical information resources management (IRM) initiatives to incrementally achieve the Agency IRM strategy as defined in the June 2011 NASA IRM Strategic Plan. Besides providing clear linkages between the Strategic Objectives and the corresponding Tactical Objectives, this plan also provides linkage to the FY12 OCIO budget and performance measures to help ensure successful planning and execution of the tactical investments. The plan also describes performance measurement and monitoring for these investments once realized. This Tactical Plan will be used by the OCIO internally to guide and assess performance during FY12 and future versions will be published for additional stakeholder use in upcoming fiscal years.

2. Relationship to the June 2011 NASA IRM Strategic Plan

While the NASA IRM Strategic Plan identifies what the OCIO workforce will collaboratively focus on achieving over the next three to five years, the OCIO Tactical Plan is developed annually to define how the strategy will be executed incrementally to achieve the longer term IRM goals, as shown in Figure 1. The OCIO annually reviews progress towards the IRM Strategic Plan and adjusts and publishes an updated IRM Strategic Plan as appropriate. Following this reconciliation process, the customer-oriented governing boards will prioritize the elements of the IRM Strategic Plan, after which the annual evaluation and selection of tactical investments is performed. This approach maximizes the linkage between the selected investments, affordably and effectively achieving NASA's mission, and the Agency's annual budget request.

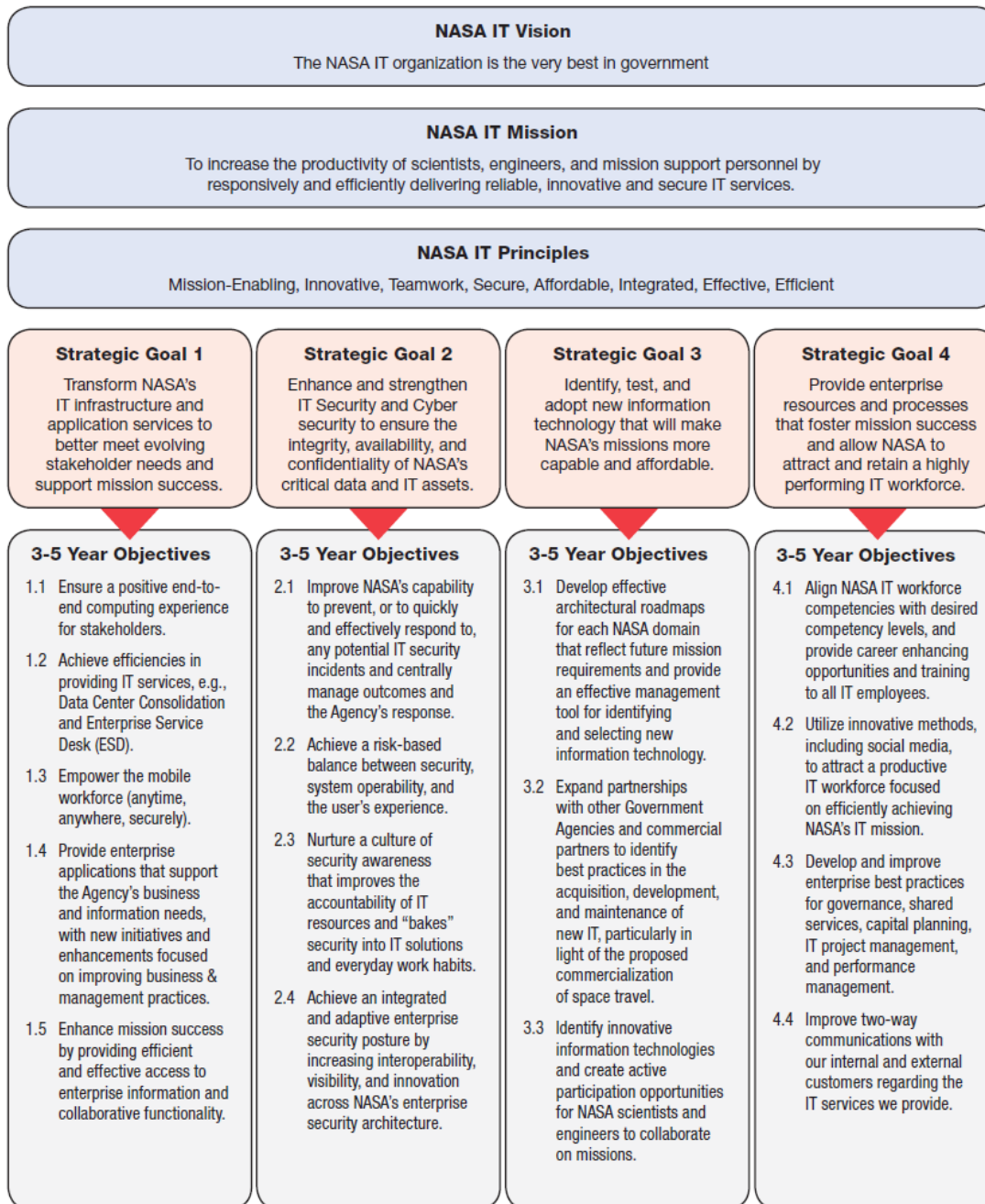
Figure 1 – Tactical Plan in Perspective



3. Summary of the June 2011 NASA IRM Strategic Plan

NASA's IRM Strategic Plan from June 2011 identifies four Strategic Goals and their 16 underlying Strategic Objectives to be accomplished over the next three to five years in support of advancing our Agency's mission and vision. These goals define a common future ideal, such as providing affordable information technology and enhanced IT security, for our workforce to collaboratively focus on to accomplish the IRM strategy – within the constraints of the forecast budget environment.

Figure 2 - IRM Strategic Plan Overview



4. FY12 OCIO Tactical Plan Development Approach

The FY12 NASA IRM Strategic Plan was drafted by the OCIO in February 2011. The strategic plan was briefed to the IT Management Board (ITMB) in March 2011. The IRM Strategic Plan was reviewed by OCIO Management, Center CIOs, and Mission Directorate CIOs in April 2011, and the IRM Strategic Plan elements were scored electronically by the ITMB to define the relative priority of the strategic objectives for FY12.

A list of proposed tactical OCIO investments for FY12/13 'Agency Services and Innovation Investments' was created in April 2011. Investment proposals were developed through April by the requestors, describing each proposed tactical investment, goal linkages, requested budgets, and relevance to each of the five investment criteria: Alignment with Agency IRM Strategy, Ability to Free-Up Funds, Investment Risk, Health of Project, and Political Sensitivity.

In April 2011, the ITMB also electronically scored each of these 'Agency Services and Innovation Investments' proposals to score the proposals using the five investment criteria. The scoring resulted in an overall ranking of proposed investments within each OCIO Division. In FY13 and beyond, this investment review and ranking process for the 'Agency Services and Innovation Investments' portfolio will be performed by the ITMB for infrastructure and innovation investments, and the Business Systems Management Board (BSMB) for business systems investments. The Mission Support Council (MSC) will validate and approve the recommendations of these boards.

Senior OCIO Management also reviewed and prioritized budget proposals related to the internal management of the OCIO organization, including budget and execution, governance, communications, collaboration, and eGov support as well as enterprise license agreements and subscription fees.

The full set of tactical investment ranking results was reviewed and prioritized by OCIO Management and the list of approved investments was aligned with the adjusted FY12 budget level. The final FY12 OCIO Tactical Plan reflects expanded descriptions, linkages, plans, stakeholders, and performance measures for the approved investments at the time of the most recent FY12 budget evaluation.

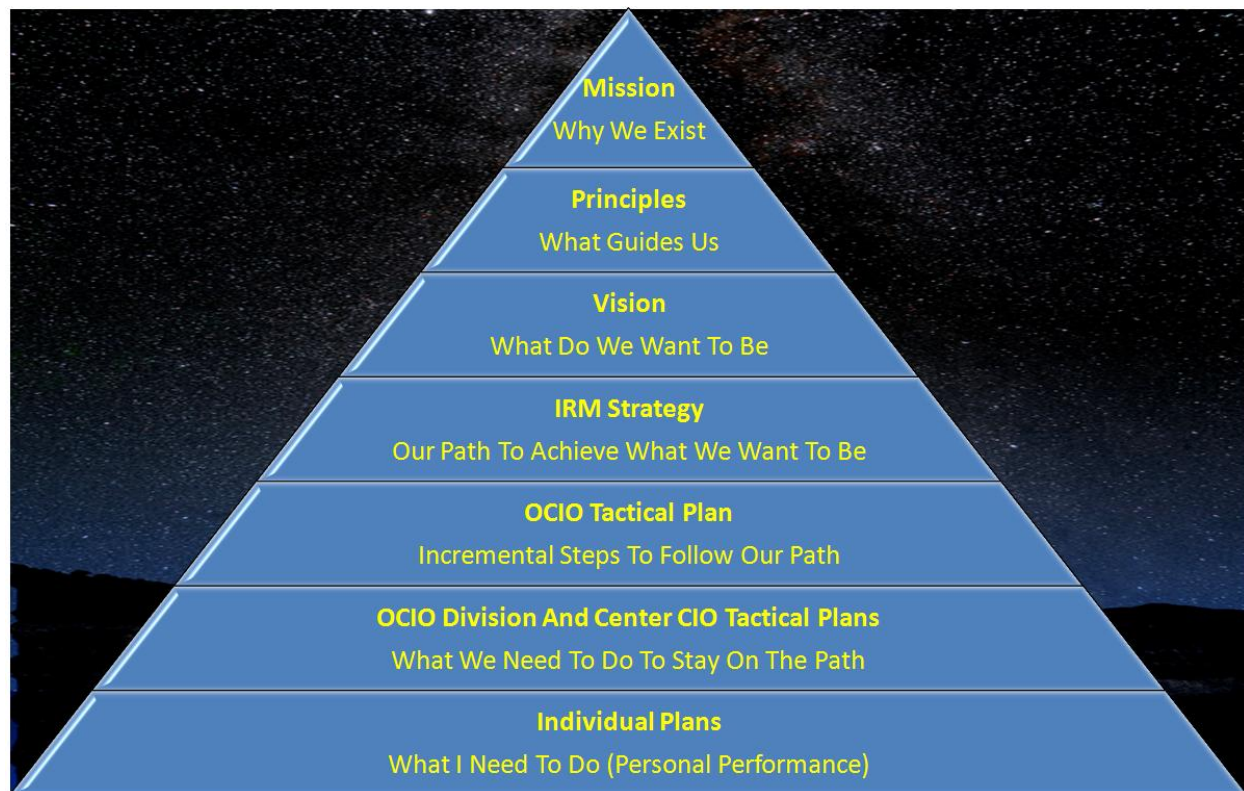
Performance monitoring and flexibility are incorporated into the OCIO Tactical Plan to provide the OCIO and its stakeholders with the ability to adapt to unanticipated events, such as further budgetary changes, disruptive technologies, shifting Federal or Agency priorities, or shifting internal customer needs to ensure alignment towards the success of NASA's mission. The performance monitoring and change management components are detailed later in the Measurement and Monitoring section of this Tactical Plan.

5. FY12 OCIO Tactical Plan in Context

The FY12 Tactical Plan reflects the initiatives that the OCIO plans to execute during the course of FY12, and includes the budgeted initiative costs, milestones for delivery, and a projection of the value that the investments will provide to our customers and taxpayers once delivered. The Tactical Plan includes approved major investments for FY12 that align with the IRM Strategic Plan, including initiatives that support the achievement of the OCIO's Annual Performance Goals (APGs). The Tactical Plan does not intend to cover every initiative or budgeted item that the OCIO will undertake in FY12 but does intend to cover the key deliverables that provide incremental delivery of NASA's IRM strategy.

The Tactical Plan serves as an annual execution roadmap for the OCIO, Divisions, Center CIOs, and personnel as summarized in Figure 3 below. The Tactical Plan also serves as a guide for priorities and a projected delivery roadmap for our stakeholders, including our customers and partners in delivering the numerous enterprise IT services. The plan also provides linkage to individual performance plans to ensure that senior executives are accountable for achieving measureable results against the IRM Strategic Plan. Finally, the plan provides performance criteria for the OCIO to ensure that these tactical investments contribute to achieving the strategy as expected, such as improved affordability, security, and satisfaction, or trigger corrective evaluations for underperforming investments.

Figure 3 – NASA IRM Planning



5.1. Requirements for Tactical Items and Underlying Success Indicators

Each Tactical Initiative has a set of specific information to provide traceability to the NASA IRM Strategic Plan Goals and Objectives, performance measurements, and budget.

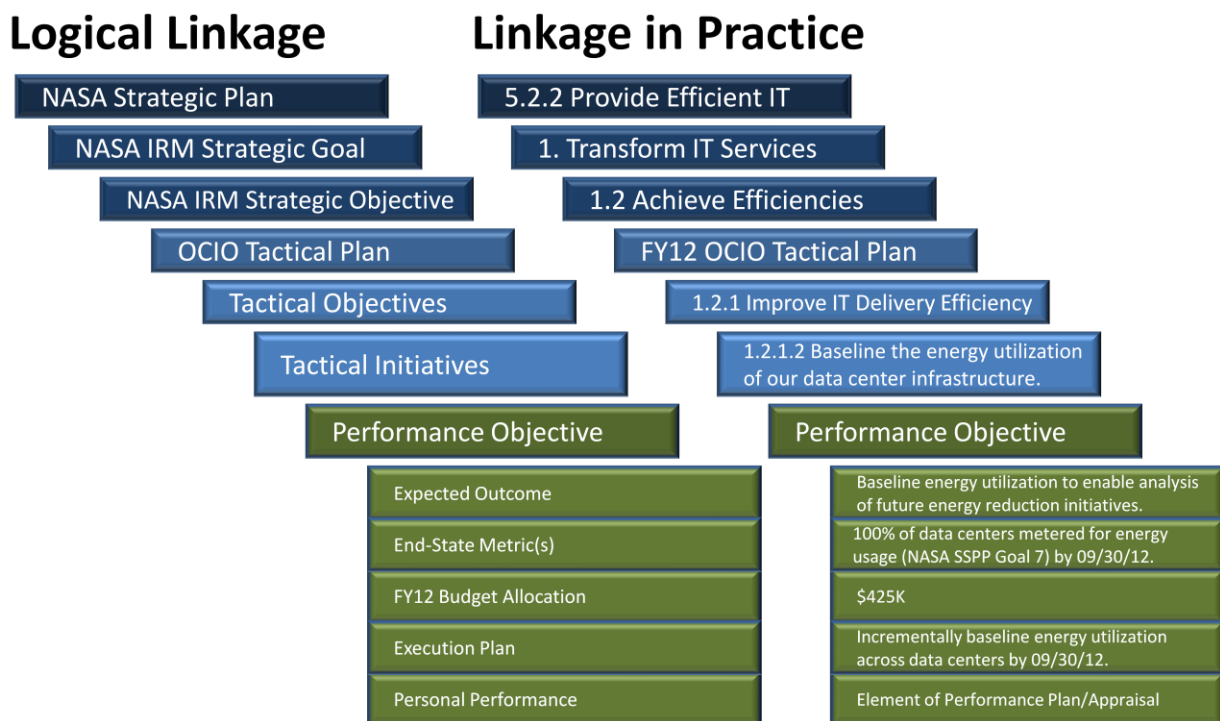
1. Has clear linkage to one primary Strategic Objective in the NASA IRM Strategic Plan.
2. Targets measureable performance towards successfully executing the linked Strategic Objective(s) in the NASA IRM Strategic Plan.
3. Has approved budget allocated to execute the underlying initiatives and meet the measureable performance commitment.
4. Is realistic, i.e., can be delivered in the timeframe specified and has undergone due diligence through the assessment of key assumptions, dependencies, and risks.

OCIO Divisions and Centers can and should have more detail for each Tactical Objective and Tactical Initiative in their individual tactical plans, to the Cost, Schedule, Performance Agreement (CSPA) level when possible, to ensure the highest likelihood of delivery and performance success.

5.2. Linkage Model

The linkage from NASA's Strategic Plan to the IRM Strategic Plan to the OCIO Tactical Plan and performance goals, budget, and personal performance is depicted below.

Figure 4 – Linkage Model



5.3. *Summary FY12 Linkage Chart and Annual Roadmap*

The figure below links the FY12 OCIO Tactical Objectives and Initiatives to the NASA IRM Strategic Goals and Objectives, summarizing the linkage of the FY12 tactics to incremental achievement of the three-to-five year IRM strategy.



























































































Table 1 – Mapping of FY12 OCIO Tactical Objectives and Initiatives to IRM Strategic Plan

IRM Strategic Goals and Objectives	FY12 Tactical Objectives	FY12 Tactical Initiatives	FY12 Rating and Rank*
Goal 1: Transform NASA's IT infrastructure and application services.	8	24	
1.1 Positive Customer Experience	2	6	7.44 (5)
1.2 Achieve Efficiencies	2	8	7.92 (2)
1.3 Empower Mobile Workforce	1	3	5.68 (10)
1.4 Effective Enterprise Apps	1	4	6.12 (8)
1.5 Access to Information	1	1	7.85 (3)
Goal 2: Enhance and strengthen IT security and Cyber security.	7	9	
2.1 Improve Incident Management	1	2	9.68 (1)
2.2 Balanced Risk	2	2	7.57 (4)
2.3 Culture of Security Awareness	1	2	6.03 (9)
2.4 Provide Adaptive Security	3	3	6.71 (7)
Goal 3: Identify, test, and adopt new information technology.	4	5	
3.1 IT Roadmap & Technology Infusion	2	3	5.34 (11)
3.2 Expand IT Partnerships	1	1	4.63 (13)
3.3 Innovate and Collaborate	1	1	7.03 (6)
Goal 4: Provide enterprise resources and processes.	5	7	
4.1 Improve Competency	1	1	4.53 (14)
4.2 Attract Talent	1	1	4.28 (16)
4.3 Improve Work Practices	2	4	4.85 (12)
4.4 Improve Two-way Communications	1	1	4.35 (15)
Total Objectives and Initiatives	24	45	

* The IRM Strategic Plan elements were scored electronically by the ITMB to define the relative priority of the strategic objectives for FY12 (a rank of 1 out of 16 reflects the highest priority).

The figure below displays a list of major Tactical Plan milestones through FY12 in order to summarize key activities in the IRM execution roadmap.

Figure 5 – Planned Investment Deliverables by Fiscal Quarter for FY12

 Major Milestone  APG	Q1 FY12 (Ends 12/31/11)	Q2 FY12 (Ends 03/31/12)	Q3 FY12 (Ends 06/30/12)	Q4 FY12 (Ends 09/30/12)
Strategic Goal 1	ACES SORR  HP Thin Client 	ACES Complete 	ITOH 	ACES EP 
	NITS/NSOFS 	Network Plan  NICS SORR 	NICS Complete 	IPv6 for All Public Sites 
	ESD 1.1 Go-Live  ESD/HITSS 		ESD 1.2  ESD/SSC 	ESD FOC  ESD/EAST 
	Web Procurement Dev Team/Requirements 	To-Be Web Architecture 	Web NPR 	Open Source CMS  TIC: Einstein 3 (12/31/12) 
	FDCCI Plan  IDAMS ORR  Nebula Moderate  Nebula ORR 	Cloud First: 1 st Service 	Cloud First: 2 nd and 3 rd Services 	Reduce Data Centers by 10%  Baseline Energy Utilization 
	ABPL Workshop 	ICE at NEACC  Decomm Mainframe  Adobe Reader Extensions Integration 	eForms Requirements Validation and Acquisition Strategy 	Award ETS2 (10/31/12)  FY13 Apps Strategy 
	Service Improvement Framework 	Business Office Performance Aggregation 		
	STI Future State Model 			CASI Warehouse Clearance Plan 
Strategic Goal 2	ACES ATO  Begin Cyberscope reporting 	Improved Sinkhole Server  NICS ATO  Pilot Smart Card Wireless  RSA Tokens Replaced 	Risk Scoring & Reporting Methodology  DAR Audit  Awareness Survey & Analysis 	IDS Monitoring: 90% Institutional 25% Mission  Sun Suite Options  Smart Card-Only Desktop  Pilot  Plan  Mobile Auth Strategy 
Strategic Goal 3	Baseline EA Strategy  Tech Infusion Framework  IT Labs Collaboration Platform  RHoK  code.nasa.gov  GitHub:FI 	Updated EA Strategy  IT Labs Project Call  Agency Review of NPR 2830  OpenGov Plan v2 	Updated EA Strategy  Q2 Project Closeout & Q3 Call  2 nd Annual Open Source Summit  International Space Apps Challenge 	Updated EA Strategy  Q3 Project Closeout & Q4 Call  Open Source Guidance  Expand data.nasa.gov 
Strategic Goal 4	Ongoing I3P Communications  I3P Training  IT Talk 	I3P Performance Management  BCA Template  Ongoing STEM Connector Activities  IT Talk 	IT PM/Eng Handbooks  IT Investment Turnaround/Termination  IT Competency (CMS) Phase 1  IT Talk 	I3P Town Hall  EPMS at Centers  IT Competency (CMS) Phase 2  IT Talk 

6. FY12 OCIO Investments (Adjusted as of October 13, 2011)

The budget items for FY12 are listed below with identifiers to provide linkage to FY12 Tactical Initiatives.

Table 2 – FY12 Adjusted OCIO Budget Items (includes Civil Servant labor cost)

#	Enterprise Business Systems Portfolio	FY12 Budget, \$K
1	eGov	5,195
2	Enterprise Applications	57,332
3	NASA Aircraft Management Information System (NAMIS)	2,121
4	Identity Credential Access Management (ICAM)	7,501
5	Scientific and Technical Information (STI)	6,690
	Portfolio Subtotal	78,839
#	Infrastructure Services Portfolio	FY12 Budget, \$K
6	NASA Consolidated Active Directory (NCAD)	485
7	NASA Data Center (NDC)	3,850
8	IP Address Management (IPAM)	862
9	I3P Agency Web Services	9,715
10	Emerging Technology and Desktop Standards (ETADS)	720
11	IT Discovery and Mapping Systems (IDAMS)	650
12	Data Center Power Monitoring	425
13	Service Integration Management (SIM)	453
14	Enterprise Project Management System (EPMS)	492
15	I3P Web Service Office	1,185
16	System Engineering and Integration (SEI)	95
17	Data Center Consolidation	855
18	I3P Program Office	784
19	Cloud Computing / Nebula	1,894
20	Enterprise IT Lab	1,123
21	Open Gov	650
22	Enterprise Architecture Support	750
23	Collaboration@NASA (IRRP mandate)	496
24	SOC Ops	8,505
25	ASUS Patch	753
26	ASUS ITSEC-EDW	808
27	NASA Security Assessment & Authorization Repository	642
28	Agency Security Configuration Standards	351
29	IT SEC PMO	1,405
30	Web / Applications Security Program	387
31	3rd Party Penetration Testing	350
32	SOC Eng Mission	500
33	IT Security Awareness & Training Center	420
34	SOC Eng LOG	419
35	Computing Services / Storefront	200
36	FISMA Governance, Risk Management and Compliance	544
37	Agency Vulnerability Assessment & Remediation (AVAR)	492
	Portfolio Subtotal	41,260
#	Agency Fees and Bills Portfolio	FY12 Budget, \$K
38	ACES Base Services	28,267
39	Enterprise Licenses	3,068
40	ODIN Services	56
41	Trusted Internet Connection (TIC)	100
42	XWIN	66
43	NASA PKI Licenses	732
	Portfolio Subtotal	32,289
#	OCIO Management Portfolio	FY12 Budget, \$K
44	Travel	550
45	OCIO Management	3,237
	Portfolio Subtotal	3,787
	OCIO Adjusted FY12 Budget Total (All Portfolios)	156,175

7. FY12 OCIO Tactical Plan Investment Reference Model

Tactical investments are identified by a set of one or more tactical initiatives that together execute a tactical objective in support of incremental achievement of the NASA IRM Strategy.

The reference model below provides a framework and definition for the FY12 Tactical Objectives and their subcomponents.

Table 3 – Reference Model for Tactical Plan Objectives

Field Name	Description and Supporting Information
IRM Strategic Goal #	The Strategic Goal as identified in the IRM Strategic Plan
IRM Strategic Objective #.#	The Strategic Objective as identified in the IRM Strategic Plan
FY12 Tactical Objective #.#.#	The description of the tactic to be used by OCIO within a fiscal year to incrementally achieve one IRM Strategic Objective. Example: Decrease annual end user computing costs by \$3M by Q3 FY12
FY12 Budget for Tactical Objective	Summarizes the OCIO budget of the underlying Tactical Initiatives that is required during FY12 to achieve the target outcome and performance for the Tactical Objective
FY12 Tactical Initiative #.#.#.#	A realistic major deliverable within a Tactical Objective that links to the IRM Strategic Plan, has approved budget specifically identified, and has measurements to assess investment performance
<i>Service Executive/Program Manager</i>	The person(s) accountable for delivery of the Tactical Initiative
<i>Executing Center Project/Investment Mgr</i>	The person(s) responsible for delivery of the Tactical Initiative
<i>Secondary Linkage to IRM Strategy</i>	Lists linkage to IRM Strategic Objectives other than the primary Strategic Objective to which the Tactical Initiative provides a major contribution or achievement
<i>FY12 Budget (Adjusted)</i>	Includes the approved budget dollar figure and the investment title from Table 2 – FY12 Adjusted Budget Items, or N/A for initiatives without specific budget identified (handled as exceptions)
<i>Success Indicator and Linkage to APG</i>	Provides specific performance goals and expectations based on the planned delivery of the Tactical Initiative (e.g., decrease annual operational costs by \$X, or increase baseline customer satisfaction by N%), and identifies linkages to relevant OCIO APGs for OMB reporting as applicable
<i>Due Date</i>	The date in MM/DD/YYYY format when the Tactical Initiative is expected to be completed and performance of the actual investment benefits will be monitored and evaluated against expectations for ongoing effectiveness
<i>Deliverables and Milestones</i>	Includes major planned deliverables that support the execution of the Tactical Initiative with delivery dates in MM/DD/YY format - KDP milestones will be included for NPR 7120.7 projects
<i>Assumptions, Risks, and Dependencies</i>	Identifies major planning indicators that may affect the full or partial delivery of the Tactical Initiative

8. Summary – FY12 OCIO Tactical Investments

The OCIO's Tactical Objectives and their underlying initiatives for FY12 are listed below. The OCIO has identified 24 Tactical Objectives and 45 Tactical Initiatives to accomplish significant progress in FY12 towards the achievement of the June 2011 IRM Strategic Plan.

Table 4 – Summary of FY12 OCIO Tactical Plan Investments

IRM Strategic Goal 1	Transform NASA's IT infrastructure and application services to better meet evolving stakeholder needs and support mission success.
IRM Strategic Objective 1.1	Ensure a positive end-to-end computing experience for stakeholders.
FY12 Tactical Objective 1.1.1	Increase customer satisfaction by improving the integration of Agency IT services and processes that manage service fulfillment, changes and events.
FY12 Tactical Initiative 1.1.1.1	Consolidate the provisioning and management of end-user services to increase customer satisfaction and achieve economies of scale.
FY12 Tactical Initiative 1.1.1.2	Provide a single point of contact for customers to report incidents and order services by implementing a central service desk and ordering system.
FY12 Tactical Initiative 1.1.1.3	Improve service consistency by implementing and measuring disciplined IT service management and governance processes in alignment with the IT Infrastructure Library (ITIL) v3 framework.
FY12 Tactical Initiative 1.1.1.4	Implement the capability to process IPv6 traffic to enable improved Agency mission and mission support services with greater efficiency.
FY12 Tactical Objective 1.1.2	Increase our customers' satisfaction with the IT services that we provide by implementing user feedback mechanisms and transforming feedback into service improvements.
FY12 Tactical Initiative 1.1.2.1	Understand customer pain points and prioritize opportunities for improvement identified through feedback mechanisms such as social media, customer forums, and surveys.
FY12 Tactical Initiative 1.1.2.2	Develop a framework and methodology that leverages Continual Service Improvement (ITIL) for identifying and assessing opportunities to improve existing IT services.
IRM Strategic Objective 1.2	Achieve efficiencies in providing IT services, e.g., Data Center Consolidation and Enterprise Service Desk (ESD).
FY12 Tactical Objective 1.2.1	Improve efficiency through the consolidation and monitoring of IT service delivery to reduce annual operational costs and improve end user productivity.
FY12 Tactical Initiative 1.2.1.1	Consolidate data center capabilities across NASA to reduce the logistical footprint and increase the efficiency of data center assets.
FY12 Tactical Initiative 1.2.1.2	Baseline the energy utilization of our data center infrastructure.
FY12 Tactical Initiative 1.2.1.3	Implement interim web service delivery efficiencies while preparing for the Agency Web Services procurement.
FY12 Tactical Initiative 1.2.1.4	Consolidate management and monitoring of NASA mission and corporate networks.
FY12 Tactical Initiative 1.2.1.5	Define and execute the strategy to integrate IT Help Desk support across the Agency.
FY12 Tactical Objective 1.2.2	Utilize internal and external cloud hosting capabilities to reduce the annual operating costs of NASA IT services.
FY12 Tactical Initiative 1.2.2.1	Deploy and operate Nebula Infrastructure-as-a-service (IaaS) as a science-based cloud.
FY12 Tactical Initiative 1.2.2.2	Move three services to a cloud environment by June 2012 to support the shift to "Cloud First" host computing.
FY12 Tactical Initiative 1.2.2.3	Transition Agency IT services to a cloud hosting environment to reduce annual operating costs.

IRM Strategic Objective 1.3	Empower the mobile workforce (anytime, anywhere, securely).
FY12 Tactical Objective 1.3.1	Improve the productivity of our mobile workforce by providing infrastructure and applications that increase mobile access to enterprise capabilities and information.
FY12 Tactical Initiative 1.3.1.1	Increase the usability of smart phones across the enterprise.
FY12 Tactical Initiative 1.3.1.2	Provide client configuration access and control to improve mobile device access.
FY12 Tactical Initiative 1.3.1.3	Implement Trusted Internet Connections (TIC) for NASA in conjunction with the Department of Homeland Security to conform to OMB/DHS' TIC initiative, including consolidation of the Agency's connections to external networks as well as the ability to centrally monitor these internet connections.
IRM Strategic Objective 1.4	Provide enterprise applications that support the Agency's business and information needs, with new initiatives and enhancements focused on improving business and management practices.
FY12 Tactical Objective 1.4.1	Improve NASA's overall business capabilities, efficiency, and mission effectiveness by providing enterprise applications and enhancements as prioritized by functional owners.
FY12 Tactical Initiative 1.4.1.1	Create a well-defined process for obtaining timely BSMB approval of the annual Strategic Roadmap for Enterprise Applications.
FY12 Tactical Initiative 1.4.1.2	Provide Enterprise business and management applications and enhancements as prioritized by functional owners.
FY12 Tactical Initiative 1.4.1.3	Decommission the Agency mainframe computer after the last Shuttle flight.
FY12 Tactical Initiative 1.4.1.4	Define our mobile application strategy and market our IT service capabilities to our customers.
FY12 Tactical Objective 1.4.2	Increase the efficiency and effectiveness of electronic forms across the Agency user community by obtaining and integrating new technologies and processes.
FY12 Tactical Initiative 1.4.2.1	Incorporate Adobe Live Cycle Reader Extensions (RE) features into the NASA business environment.
FY12 Tactical Initiative 1.4.2.2	Prepare NASA for the acquisition and conversion to a replacement electronic forms solution.
IRM Strategic Objective 1.5	Enhance mission success by providing efficient and effective access to enterprise information and collaborative functionality.
FY12 Tactical Objective 1.5.1	Increase access to NASA's Scientific and Technical Information (STI) by improving the collection, organization, dissemination (to NASA and public) of NASA's Agency-wide research and development STI.
FY12 Tactical Initiative 1.5.1.1	Plan for the long term modernization of NASA STI, and continue modernizing the STI infrastructure and digitizing the STI archive to ensure quality authoritative information for dissemination and preservation.

IRM Strategic Goal 2	Enhance and strengthen IT security and Cyber security to ensure the integrity, availability, and confidentiality of NASA's critical data and IT assets.
IRM Strategic Objective 2.1	Improve NASA's capability to prevent, or to quickly and effectively respond to, any potential IT security incidents and centrally manage outcomes and the Agency's response.
FY12 Tactical Objective 2.1.1	Improve the capabilities of the NASA Security Operations Center (SOC).
FY12 Tactical Initiative 2.1.1.1	Expand the coverage of SOC solutions across the Agency while continuously moving towards preventative countermeasures.
FY12 Tactical Initiative 2.1.1.2	Increase the use of intrusion detection sensors monitored by the NASA SOC.
IRM Strategic Objective 2.2	Achieve a risk-based balance between security, system operability, and the user's experience.
FY12 Tactical Objective 2.2.1	Enable enterprise integrated risk management governance structure following NIST 800-39 through NIST 800-30 Rev1 while moving towards continuous monitoring.

FY12 Tactical Initiative 2.2.1.1	Build out the risk management framework (800-37Rev1) as a core component of the systems development lifecycle.
FY12 Tactical Objective 2.2.2	Ensure that I3P services prioritize implementation of security requirements based on assessment of risks.
FY12 Tactical Initiative 2.2.2.1	Support the I3P services areas in obtaining and maintaining the appropriate authority to operate.
IRM Strategic Objective 2.3	Nurture a culture of security awareness that improves the accountability of IT resources and “bakes” security into IT solutions and everyday work habits.
FY12 Tactical Objective 2.3.1	Assess the current level of security awareness of the NASA user community and specific gaps in order to determine the most effective methods for a future awareness campaign.
FY12 Tactical Initiative 2.3.1.1	Complete a user awareness survey and analyze responses.
FY12 Tactical Initiative 2.3.1.2	Establish a just-in-time security awareness program.
IRM Strategic Objective 2.4	Achieve an integrated and adaptive enterprise security posture by increasing interoperability, visibility, and innovation across NASA’s enterprise security architecture.
FY12 Tactical Objective 2.4.1	Meet new DHS requirements for monthly automated reporting in Cyberscope.
FY12 Tactical Initiative 2.4.1.1	Analyze new monthly reporting formats from DHS, produce automated data feeds from ITSEC-EDW, and report monthly in Cyberscope by the required deadline.
FY12 Tactical Objective 2.4.2	Create an environment for forward-looking, enterprise-based, security technologies and solutions.
FY12 Tactical Initiative 2.4.2.1	Establish, document and communicate a standard NASA IT Security reference architecture.
FY12 Tactical Objective 2.4.3	Increase the protection of NASA’s enterprise information resources by improving the security of our Agency IT services.
FY12 Tactical Initiative 2.4.3.1	Develop and implement Agency policy and capabilities for the use of approved credentials for access to NASA networks and systems.

IRM Strategic Goal 3	Identify, test, and adopt new information technology that will make NASA’s missions more capable and affordable.
IRM Strategic Objective 3.1	Develop effective architectural roadmaps for each NASA domain that reflect future mission requirements and provide an effective management tool for identifying and selecting new information technology.
FY12 Tactical Objective 3.1.1	Institutionalize an IT Lifecycle Governance Framework (based on ITIL v3), and create Enterprise Architecture artifacts (Enterprise Target-State and Transition Plan) that guides Agency-wide IT investment decisions and solution implementations toward achieving NASA’s strategic goals.
FY12 Tactical Initiative 3.1.1.1	Develop, maintain, and communicate an enterprise target state and transition plan that accounts for the six technical domains that make up all IT solutions.
FY12 Tactical Objective 3.1.2	Develop and implement a technology infusion framework to guide the evaluation and implementation of new IT services to create a positive return on investment for the Agency.
FY12 Tactical Initiative 3.1.2.1	Develop a framework and methodology for identifying and assessing opportunities for innovation and new technology to improve IT customer satisfaction, service delivery, and efficiency.
FY12 Tactical Initiative 3.1.2.2	Facilitate the development of ideas, proofs of concept, prototypes and pilots for information management improvements that have enterprise service potential.
IRM Strategic Objective 3.2	Expand partnerships with other Government Agencies and commercial partners to identify best practices in the acquisition, development, and maintenance of new IT, particularly in light of the proposed commercialization of space travel.
FY12 Tactical Objective 3.2.1	Identify and execute opportunities to increase transparency and enhance collaboration with other Agencies and organizations.
FY12 Tactical Initiative 3.2.1.1	Coordinate events that support cross-Agency partnerships and collaborative opportunities.

IRM Strategic Objective 3.3	Identify innovative information technologies and create active participation opportunities for NASA scientists and engineers to collaborate on missions.
FY12 Tactical Objective 3.3.1	Increase the positive impact of collaboration across NASA.
FY12 Tactical Initiative 3.3.1.1	Promote knowledge sharing and collaboration by effectively communicating IT Labs initiatives, projects and resources across NASA.

IRM Strategic Goal 4	Provide enterprise resources and processes that foster mission success and allow NASA to attract and retain a highly performing IT workforce.
IRM Strategic Objective 4.1	Align NASA IT workforce competencies with desired competency levels, and provide career enhancing opportunities and training to all IT employees.
FY12 Tactical Objective 4.1.1	Provide increased visibility into the current competencies of NASA's existing and incoming IT workforce for use with identifying and resolving IT competency gaps.
FY12 Tactical Initiative 4.1.1.1	Obtain updated competency information for NASA's IT workforce for existing employees and train incoming personnel to provide competency information.
IRM Strategic Objective 4.2	Utilize innovative methods, including social media, to attract a productive IT workforce focused on efficiently achieving NASA's IT mission.
FY12 Tactical Objective 4.2.1	STEM) education with a perspective on information technologies to help cultivate the next-generation of NASA's IT workforce.
FY12 Tactical Initiative 4.2.1.1	Participate in the STEMConnector Project to collaborate and develop networks with NASA's next-generation IT workforce.
IRM Strategic Objective 4.3	Develop and improve enterprise best practices for governance, shared services, capital planning, IT project management, and performance management.
FY12 Tactical Objective 4.3.1	Improve IT project coordination and success.
FY12 Tactical Initiative 4.3.1.1	Implement disciplined system engineering practices and an integrated project management toolset to increase insight into project status and dependencies across I3P and Centers.
FY12 Tactical Objective 4.3.2	Improve investment justification in a consistent manner, and improve investment performance through proactive reviews and analysis that lead to concrete action.
FY12 Tactical Initiative 4.3.2.1	Develop a business case analysis template to enable management to consistently determine the business value of a proposed IT investment and if the value is achievable and desirable as compared to the relative merits of alternative investments.
FY12 Tactical Initiative 4.3.2.2	Identify underperforming IT investments and initiate turn-around or termination as appropriate.
FY12 Tactical Initiative 4.3.2.3 – OCIO: Support Role Only	Support the implementation of a central business office to manage contract administration, funding and service level reporting for I3P services.
IRM Strategic Objective 4.4	Improve two-way communications with our internal and external customers regarding the IT services we provide.
FY12 Tactical Objective 4.4.1	Increase stakeholder awareness of the OCIO and ensure that Centers are fully informed of OCIO initiatives and the services provided.
FY12 Tactical Initiative 4.4.1.1	Provide effective communications regarding Agency IT service and activities, including the I3P transition.

9. Detail – FY12 OCIO Tactical Investments

The detailed OCIO tactical investments planned for FY12 are provided in the tables below. Please refer to the Tactical Plan Investment Reference Model in Section 7 for guidance regarding the structure of this planning information and performance criteria.

Table 5 – FY12 OCIO Tactical Plan

9.1. FY12 OCIO Tactical Plan Investments for IRM Strategic Goal 1

IRM Strategic Goal 1	Transform NASA's IT infrastructure and application services to better meet evolving stakeholder needs and support mission success.
IRM Strategic Objective 1.1	Ensure a positive end-to-end computing experience for stakeholders.
FY12 Tactical Objective 1.1.1	Increase customer satisfaction by improving the integration of Agency IT services and processes that manage service fulfillment, changes and events.
FY12 Budget for Tactical Objective	\$1,315K
FY12 Tactical Initiative 1.1.1.1	Consolidate the provisioning and management of end-user services (EUS) to increase customer satisfaction and achieve economies of scale.
<i>Service Executive/Program Manager</i>	John Sprague
<i>Executing Center Project/Investment Mgr</i>	KSC, GRC, NSSC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.2 - Achieve IT Efficiencies
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o APG 5.2.2.1: AMO-12-12: Achieve Full Operational Capacity (FOC) for the initial five Service Offices as part of the NASA (I3P) o Reduce S-Seat cost by 3.4% and M-Seat cost by 3.2% o Operational savings of \$11.2M through ACES contract o Virtual Team Service (VTS) cost avoidance beginning 03/01/12 o Yearly VTS seat price reductions starting Nov. 2012, with 90% price drop by Nov. 2013 o Print consumables cost avoidance beginning 03/01/12 o EUS services meet defined service level metrics
<i>Due Date</i>	03/01/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Launch Service Office <ul style="list-style-type: none"> - Create and train Service Office by 08/19/11 - Service Office Readiness Review by 10/31/11 o Baseline HP performance by 02/01/12 o ACES Performance Evaluation Board meeting by 01/31/12 o Implement Contract: Center transition complete by 03/01/12 o Complete close-out of ODIN contract by 03/01/12
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.1.1.2	Provide a single point of contact for customers to report incidents and order services by implementing a central service desk and ordering system.
<i>Service Executive/Program Manager</i>	Saurabh Baveja
<i>Executing Center Project/Investment Mgr</i>	NSSC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.2 - Achieve IT Efficiencies
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o APG 5.2.2.1: AMO-12-12: Achieve Full Operational Capacity (FOC) for the initial five Service Offices as part of the NASA I3P o Successful implementation of Enterprise Service Desk (ESD) 1.0 and 1.1 to support first I3P service Go-Live plan o ESD services meet defined service level metrics
<i>Due Date</i>	08/01/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o ESD 1.0/1.1 - Combined ORR by 08/11/11 o ESD 1.0/1.1 - Go-Live by 11/01/11 o ESD 1.2 by 05/01/12 o ESD Final Operating Capability by 08/01/12
<i>Assumptions, Risks, and Dependencies</i>	ESD 1.2 is an enhancement that will leverage existing resources.

FY12 Tactical Initiative 1.1.1.3	Improve service consistency by implementing and measuring disciplined IT service management and governance processes in alignment with the IT Infrastructure Library (ITIL) v3 framework.
<i>Service Executive/Program Manager</i>	Lynn Vernon
<i>Executing Center Project/Investment Mgr</i>	JSC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 4.3 - Enterprise Best Practices
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$453K o Links to budget items 13 - Service Integration Management (SIM)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Base and integrated service performance measures with identified weightings o Change management performance measures o 95% of key roles completed critical training o Contractors consistently meet or exceed Service Level Standards defined in IT service support contracts o Improved stakeholder confidence and satisfaction
<i>Due Date</i>	03/31/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Users trained on I3P processes by 10/28/2011 (Vernon) o Service Area Charters approved by 11/30/11 (Service Executives) o Performance Management implemented for I3P (Business Office performance aggregation, Baseline Performance, Continual Service Improvement) by 01/31/12 (Vernon) o Start implementing Service Asset Management and Release & Deployment ITIL processes by 02/01/12 (Vernon) o IT Operations Handbook (ITOH) published by 03/31/12 (Irwin) o Develop and execute training plan (Vernon) o Approved IT Service Management plan for the next 5 ITIL processes (Vernon)
<i>Assumptions, Risks, and Dependencies</i>	Dependency: Contractor processes align with ITIL framework.

FY12 Tactical Initiative 1.1.1.4	Implement the capability to process IPv6 traffic to enable improved Agency mission and mission support services with greater efficiency.
<i>Service Executive/Program Manager</i>	Tom Miglin
<i>Executing Center Project/Investment Mgr</i>	MSFC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.2 - Achieve IT Efficiencies
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$862K o Links to budget item 8 – IP Address Management (IPAM)
<i>Success Indicator and Linkage to APG</i>	100% of public-facing web services IPv6 enabled by 09/30/12
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Integrate FAR requirements into Agency process by 12/31/11 o 10% of public-facing web services IPv6 enabled by 03/31/12 o 50% of public-facing web services IPv6 enabled by 06/30/12 o 100% of public-facing web services IPv6 enabled by 09/30/12
<i>Assumptions, Risks, and Dependencies</i>	IT security must be IPv6 compatible to enable intrusion detection and monitoring; dependent on SOC for network monitoring.

FY12 Tactical Objective 1.1.2	Increase our customers' satisfaction with the IT services that we provide by implementing user feedback mechanisms and transforming feedback into service improvements.
FY12 Budget for Tactical Objective	\$0
FY12 Tactical Initiative 1.1.2.1	Understand customer pain points and prioritize opportunities for improvement identified through feedback mechanisms such as social media, customer forums, and surveys.
<i>Service Executive/Program Manager</i>	Lynn Vernon, Service Executives
<i>Executing Center Project/Investment Mgr</i>	JSC
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<p>Improved customer awareness and feedback on I3P services:</p> <ul style="list-style-type: none"> o Customer satisfaction survey sent with every ticket submitted o Critical training products published and easily available o Key Yammer threads created; active Agency participation o I3P Integration Forums held minimum biweekly with cross Agency attendance o Leverage CSI and CPI (both ITIL-based) using feedback mechanisms to create a "voice of the customer" strategy o 94% customer satisfaction rate for ACES services
<i>Due Date</i>	03/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Establish key Yammer threads by 9/30/11 (Vernon) o Provide training product information by 10/28/11 (Petze) o Customer satisfaction survey for monitoring ACES services developed by 11/30/11 (Sprague) o Implement SLI performance monitoring by 03/30/12 (Vernon) o Implement monthly NSSC review of ESD (Baveja) o Monthly OCIO Stakeholder ESD reviews (Baveja) o Implement real-time reviews of ESD (Baveja)
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.1.2.2	Develop a framework and methodology that leverages Continual Service Improvement (ITIL) for identifying and assessing opportunities to improve existing IT services.
<i>Service Executive/Program Manager</i>	J.C. Duh; Service Executives
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 4.3 - Enterprise Best Practices
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Establishment of a list of candidate IT improvements for prioritization by the relevant governance boards and for CP&G budget planning and allocation o Performance of implemented improvements is measured and compared to expected performance targets
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	o ECAB Charter approved by ITMB by 9/15/11 (Duh) o Develop methodology for assessing IT improvement opportunities across service areas by 10/31/11 (Duh) o Assess the viability of HP thin-client by 12/01/11 (Sprague) o ICAM Services will assess viability of Mission RSA consolidation, PKI directory tree collapse, consolidation of Visitor Management, and consolidation of Locator Services by 09/30/12 (Irwin) o Evaluate and present Sun Product Suite Replacement options to ECAB and ITMB by 07/31/12 (Irwin)
<i>Assumptions, Risks, and Dependencies</i>	Dependency on creation of the OCIO BCA template to enable more effective ranking of IT improvement opportunities. Requires effective operation and integration across the IT Services Boards.

IRM Strategic Objective 1.2	Achieve efficiencies in providing IT services, e.g., Data Center Consolidation and Enterprise Service Desk (ESD).
FY12 Tactical Objective 1.2.1	Improve efficiency through the consolidation and monitoring of IT service delivery to reduce annual operational costs and improve end user productivity.
FY12 Budget for Tactical Objective	\$12,180K
FY12 Tactical Initiative 1.2.1.1	Consolidate data center capabilities across NASA to reduce the logistical footprint and increase the efficiency of data center assets.
<i>Service Executive/Program Manager</i>	Karen Petraska
<i>Executing Center Project/Investment Mgr</i>	KSC
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$855K o Links to budget item 17 – Data Center Consolidation
<i>Success Indicator and Linkage to APG</i>	o APG 5.2.2.4: AMO-12-15: Reduce the number of NASA data centers by 10 percent (related to 25 Point Plan, #1) o Computing Services meet defined service level metrics
<i>Due Date</i>	10/01/15
<i>Deliverables and Milestones</i>	o FDCCI plan update to OMB including letter from CIO by 09/30/11 o Publish Agency FDCCI consolidation plan, redacted, by 10/07/11 o IDAMS ORR by 11/30/11 o Quarterly updates of data center closures through 10/01/15
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.2.1.2	Baseline the energy utilization of our data center infrastructure.
<i>Service Executive/Program Manager</i>	Karen Petraska
<i>Executing Center Project/Investment Mgr</i>	All Centers
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$425K o Links to budget item 12 – Data Center Power Monitoring
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Performance Goal 5.2.2.4: By 2015, reduce data center energy consumption by 30 percent. Related to APG 5.2.2.4: AMO-12-15 o 100% of data centers metered for energy usage (NASA SSPP Goal 7) by 09/30/12
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Baseline infrastructure energy utilization by 09/30/12.
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.2.1.3	Implement interim web service delivery efficiencies while preparing for the Agency Web Services procurement.
<i>Service Executive/Program Manager</i>	Roopangi Kadakia
<i>Executing Center Project/Investment Mgr</i>	GSFC, ARC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.1 - Ensure Positive Computing Experience
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$10,900K o Links to budget item 9 – I3P Agency Web Services and 15 – I3P Web Service Office
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Increase service delivery efficiencies and improve customer satisfaction through the use of guidelines and standards (metrics will be assessed in FY12) o Prepared for Web Services procurement and transition o Web Services meet defined service level metrics
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Introduce 10 or more new Agency web guidelines and standards by 09/30/12 o Define Web Services team roles and responsibilities by 11/30/11 o Web Policy NPR by 05/30/12 o Transition from proprietary to open source CMS by 06/30/12 o Prepare for Web Services procurement <ul style="list-style-type: none"> - Set up the Procurement Development Team by 11/15/11 - Revalidate Web Services requirements by 12/01/11 - Develop to-be web architecture by 03/31/12 o Mandates <ul style="list-style-type: none"> - Rationalize duplicative/outdated sites by 10/11/11 - Complete the web inventory validation and verification in STRAW by 11/18/11 - Develop a web improvement plan by 03/31/12
<i>Assumptions, Risks, and Dependencies</i>	Assumption: Procurement vehicles will support an iterative web services transition. Risk: Incremental staffing is currently based on Center volunteers (an unsustainable approach).

FY12 Tactical Initiative 1.2.1.4	Consolidate management and monitoring of NASA mission and corporate networks.
<i>Service Executive/Program Manager</i>	Tom Miglin
<i>Executing Center Project/Investment Mgr</i>	MSFC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.3 - Empower Mobile Workforce
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o APG 5.2.2.1: AMO-12-12: Achieve Full Operational Capacity (FOC) for the initial five Service Offices as part of the NASA (I3P) o Communications Services meet defined service level metrics o Network operations centers (NOCs) located at all NASA centers will transition network monitoring/troubleshooting responsibility to a single corporate NOC, run by the NICS vendor. o Over time, participation in the NICS contract grows to the point that all corporate networks and the majority of mission networks at NASA are managed by NICS. Configuration management data for all NASA corporate networks are managed by a single NASA-wide configuration management system.
<i>Due Date</i>	06/30/13
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Develop network consolidation strategy <ul style="list-style-type: none"> - Develop strategy for NASA networks by 09/30/11 - Define consolidation plan by 01/31/12 o Document NASA communications policy o Launch Service Office <ul style="list-style-type: none"> - Create and Train Service Office by 12/01/11 - Center/Service Readiness Reviews complete by 02/27/12 o Baseline SAIC performance o NICS Performance Evaluation Board meeting by 12/01/11 o Implement ESD and NITS Help Desk support and NSOFS Service Ordering by 12/01/11 o Implement Contract: Center transition complete by 04/01/12 o Manage closeout of existing contracts by 04/01/12 o Consolidate network management (C2NOC, N2CMS) by 06/30/13
<i>Assumptions, Risks, and Dependencies</i>	Network management consolidation will begin in January 2012.

FY12 Tactical Initiative 1.2.1.5	Define and execute the strategy to integrate IT Help Desk support across the Agency.
<i>Service Executive/Program Manager</i>	Saurabh Baveja
<i>Executing Center Project/Investment Mgr</i>	NSSC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.1 - Ensure Positive Computing Experience
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Integration of additional help desks into ESD on schedule o Integrated ESD Services meet defined service level metrics
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o HITSS integration by 11/01/11 o SSC integration by 05/31/12 o EAST Help Desk Business case by 08/31/11 o ITMB Decision on EAST Help Desk Strategy by 01/31/12 o EAST Help Desk integration by 09/30/12
<i>Assumptions, Risks, and Dependencies</i>	Integration depends on deployment of ESD. Completion of EAST Help Desk integration depends upon approval of the business case.

FY12 Tactical Objective 1.2.2	Utilize internal and external cloud hosting capabilities to reduce the annual operating costs of NASA IT services.
FY12 Budget for Tactical Objective	\$1,894K
FY12 Tactical Initiative 1.2.2.1	Deploy and operate Nebula Infrastructure-as-a-service (IaaS) as a science-based cloud.
<i>Service Executive/Program Manager</i>	Karen Petraska
<i>Executing Center Project/Investment Mgr</i>	ARC, GSFC
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$1,894K o Links to budget item 19 – Cloud Computing / Nebula
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Enable SMD to perform more science per unit of cost o Computing Services meet defined service level metrics
<i>Due Date</i>	12/31/11
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Deploy Nebula Object Store and FISMA Moderate by 11/30/11 o Complete SMD testing of Nebula by 11/30/11 o Nebula ORR by 12/31/11
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.2.2.2	Move three services to a cloud environment by June 2012 to support the shift to “Cloud First” host computing.
<i>Service Executive/Program Manager</i>	Karen Petraska
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Three services moved to a cloud solution (25 Point Plan #3) o Operations cost reduction/avoidance o Computing Services meet defined service level metrics
<i>Due Date</i>	06/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Identify three “must move” services o Move one service to the cloud by 12/17/11 o Move the remaining two services to the cloud by 06/30/12
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.2.2.3	Transition Agency IT services to a cloud hosting environment to reduce annual operating costs.
<i>Service Executive/Program Manager</i>	John Sprague
<i>Executing Center Project/Investment Mgr</i>	NSSC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.1 - Ensure Positive Computing Experience
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$0 (No specified AITS budget) o (High-level estimate of \$1.5M for cloud-based email)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Reduce NOMAD operating cost while maintaining service level.
<i>Due Date</i>	11/01/13
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Perform home directory seat analysis by 08/31/11 o Launch cloud-based email service by 11/01/13
<i>Assumptions, Risks, and Dependencies</i>	

IRM Strategic Objective 1.3	Empower the mobile workforce (anytime, anywhere, securely).
FY12 Tactical Objective 1.3.1	Improve the productivity of our mobile workforce by providing infrastructure and applications that increase mobile access to enterprise capabilities and information.
FY12 Budget for Tactical Objective	\$100K
FY12 Tactical Initiative 1.3.1.1	Increase the usability of smart phones across the enterprise.
<i>Service Executive/Program Manager</i>	John Sprague, Tom Miglin
<i>Executing Center Project/Investment Mgr</i>	All Centers
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.1 - Ensure Positive Computing Experience
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Users able to collaborate via instant messages on smart phones
<i>Due Date</i>	11/01/12
<i>Deliverables and Milestones</i>	o Add table of suggested mobile applications on smart phones to NASA STD-2804 by 09/01/12 o Enable instant messaging on smart phones by 11/01/12
<i>Assumptions, Risks, and Dependencies</i>	ETADS will gather data and publish the table. IT Security will approve the new capability and HP ES will deliver a viable solution.

FY12 Tactical Initiative 1.3.1.2	Provide client configuration access and control to improve mobile device access.
<i>Service Executive/Program Manager</i>	Tom Miglin, John Sprague
<i>Executing Center Project/Investment Mgr</i>	All Centers
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o 100% of firewall rules required at all Centers implemented o 11 Centers have elevated privileges capability
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	o Implement firewall rules (Miglin) o Implement elevated privileges by 09/30/12 (Sprague)
<i>Assumptions, Risks, and Dependencies</i>	HP ES must deliver a viable solution for elevated privileges.

FY12 Tactical Initiative 1.3.1.3	Implement Trusted Internet Connections (TIC) for NASA in conjunction with the Department of Homeland Security to conform to OMB/DHS' TIC initiative, including consolidation of the Agency's connections to external networks as well as the ability to centrally monitor these internet connections.
<i>Service Executive/Program Manager</i>	Tom Miglin
<i>Executing Center Project/Investment Mgr</i>	ARC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 2.4 - Achieve Integrated Security
<i>FY12 Budget (Adjusted)</i>	o \$100K o Links to budget item 38 – Trusted Internet Connection (TIC)
<i>Success Indicator and Linkage to APG</i>	o 90% of all network traffic passing between NASA's networks and the internet will flow through and be captured by Einstein devices. (An estimated 10% of NASA traffic is via international agreements which do not allow DHS monitoring.)
<i>Due Date</i>	12/31/12
<i>Deliverables and Milestones</i>	o Install and activate Einstein 2 boxes by 08/31/11 o Create plan to consolidate different tail circuits by 07/31/12 o Install and activate Einstein 3 boxes by 12/31/12
<i>Assumptions, Risks, and Dependencies</i>	Installation of the Einstein 3 boxes is dependent on DHS plan.

IRM Strategic Objective 1.4	Provide enterprise applications that support the Agency's business and information needs, with new initiatives and enhancements focused on improving business and management practices.
FY12 Tactical Objective 1.4.1	Improve NASA's overall business capabilities, efficiency, and mission effectiveness by providing enterprise applications and enhancements as prioritized by functional owners.
FY12 Budget for Tactical Objective	\$57,332K

FY12 Tactical Initiative 1.4.1.1	Create a well-defined process for obtaining timely BSMB approval of the annual Strategic Roadmap for Enterprise Applications.
<i>Service Executive/Program Manager</i>	Erna Beverly
<i>Executing Center Project/Investment Mgr</i>	MSFC (NEACC, Neil Rodgers)
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Enterprise Applications Services strategy defined by Q4 of each FY for FY+1
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	o Conduct strategic planning workshop with ABPLs by 10/31/11 o Define Enterprise App Services strategy for FY13 by 09/30/12
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.4.1.2	Define Enterprise Applications Services strategy and provide Enterprise business and management applications and enhancements as prioritized by functional owners.
<i>Service Executive/Program Manager</i>	Erna Beverly
<i>Executing Center Project/Investment Mgr</i>	MSFC (NEACC, Neil Rodgers)
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$56,332K o Links to budget item 2 – Enterprise Applications
<i>Success Indicator and Linkage to APG</i>	o APG 5.2.2.1: AMO-12-12: Achieve Full Operational Capacity (FOC) for the initial five Service Offices as part of the NASA (I3P) o Increased user and ABPL satisfaction with applications o Number of prioritized Strategic Roadmap items delivered by expected completion date (ECD) with acceptable quality
<i>Due Date</i>	10/31/12
<i>Deliverables and Milestones</i>	o Modification of contract to address stabilization by 09/30/11 o Complete final transition of ICE to NEACC by 12/31/11 o Monthly Performance Metrics Reporting beginning 04/30/12 o Award of task order for ETS2 by 10/31/12
<i>Assumptions, Risks, and Dependencies</i>	NEACC capacity may not be adequate to deliver all high priority items within the timeframe desired by the customers.

FY12 Tactical Initiative 1.4.1.3	Decommission the Agency mainframe computer after the last Shuttle flight.
<i>Service Executive/Program Manager</i>	Erna Beverly
<i>Executing Center Project/Investment Mgr</i>	MSFC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.2 - Achieve IT Efficiencies
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$1,000K o Links to budget item 2 – Enterprise Applications
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Performance Goal 5.2.2.3: By 2014, decommission the Agency Administrative mainframe computer. APG 5.2.2.4: AMO-12-14: Migrate or retire all administrative systems from the Agency Administrative mainframe computer o Complete retirement with \$1M budget from Oct 2011 - Jan 2012 o Eliminate \$2.5M/year mainframe operating cost starting 2012
<i>Due Date</i>	01/31/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Retirement of KSC apps by 9/30/11 o Retirement of MAF and JSC shuttle applications by 12/31/11 o Decommission the Agency mainframe computer by 01/31/12
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.4.1.4	Define our mobile application strategy and market our IT service capabilities to our customers.
<i>Service Executive/Program Manager</i>	Erna Beverly
<i>Executing Center Project/Investment Mgr</i>	MSFC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.3 - Empower Mobile Workforce
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Complete rollout of the Center for Internal Mobile Apps (CIMA) services on schedule o Analyze and baseline performance targets for customer satisfaction and usage o Reduce risk and cost of duplicate internal application hosting o Reduce the risk of security breaches caused by the release of internal mobile apps that do not follow security guidelines
<i>Due Date</i>	10/31/11
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Provide Rules of Engagement document for Internal Mobile App developers by 08/31/11 o Provide Internal Mobile Apps Security Handbook by 09/17/11 o Market application service capability Agency-wide by 09/30/11 o Initial launch of CIMA by 10/31/11
<i>Assumptions, Risks, and Dependencies</i>	Centers may not embrace the centralized app store model for internal apps. Funding may be inadequate to provide all desired CIMA services.

FY12 Tactical Objective 1.4.2	Increase the efficiency and effectiveness of electronic forms across the Agency user community by obtaining and integrating new technologies and processes.
FY12 Tactical Initiative 1.4.2.1	Incorporate Adobe Live Cycle Reader Extensions (RE) features into the NASA business environment.
<i>Service Executive/Program Manager</i>	Fran Teel
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 4.3 - Enterprise Best Practices
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o ETADS testing complete; Desktop Standard 2804/2805 updated o Agency and Center forms design team, NASA Electronic Forms Working Group (NEFWG), and Center Web designers are included in training on Adobe Live Cycle RE functionality o NASA Agency forms (NF) currently designed in PDF are enabled to save filled content and evaluated to ensure Adobe Live Cycle RE software functionality is maximized o Mitigation of risk (the current unsupported FileNet forms software) is expanded by: <ul style="list-style-type: none"> - increasing the use of Adobe PDF forms at the Center level. - Posting eligible PDFs to the NASA Electronic Forms System (NEFS) and Center repositories as a viable Section 508 compliant alternative. o Improve ease of existing form conversion to the eventual eForms replacement solution by increasing the use of Adobe PDF forms
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Add Adobe Reader to the Software Refresh Portal by FY12 Q1. o Promote end user awareness of Adobe RE functionality for both forms and documents by FY12 Q2 o Enable Adobe RE in eligible NASA Agency forms by FY12 Q2 o ETADS integration testing (e.g., Windows, Mac, etc.) by FY12 Q2 o Collaborate with ETADS to update Desktop Standard 2804 and 2805 by FY12 Q4
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 1.4.2.2	Prepare NASA for the acquisition and conversion to a replacement electronic forms solution.
<i>Service Executive/Program Manager</i>	Fran Teel
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 4.3 - Enterprise Best Practices
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Finalize project plan and revalidate Agency requirements for replacement solution (reduced project variance in cost/schedule/quality) o Cost savings/avoidance from forms server consolidation
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Initiate acquisition strategy meeting by FY12 Q1 o Create a centralized SharePoint document repository by FY12 Q1 o Incorporate and train team on initial ITIL processes by FY12 Q1 o Benchmark with other federal agencies in FY12 Q1/2 o Introduce the NEFWG to Agile Scrum processes in Q1; develop user stories by FY12 Q2

	<ul style="list-style-type: none"> ○ Finalize acquisition strategy with the HQ Office of Procurement by FY12 Q2 ○ Validate that requirements are legitimate and can carry services into the future by FY12 Q3 ○ Evaluate SEWP and GSA options by FY12 Q3 ○ Perform preliminary sprints by FY12 Q4
<i>Assumptions, Risks, and Dependencies</i>	Clear understanding the NASA acquisition policies and processes.

IRM Strategic Objective 1.5	Enhance mission success by providing efficient and effective access to enterprise information and collaborative functionality.
FY12 Tactical Objective 1.5.1	Increase access to NASA's Scientific and Technical Information (STI) by improving the collection, organization, dissemination (to NASA and public) of NASA's Agency-wide research and development STI.
FY12 Budget for Tactical Objective	\$0
FY12 Tactical Initiative 1.5.1.1	Plan for the long term modernization of NASA STI, and continue modernizing the STI infrastructure and digitizing the STI archive to ensure quality authoritative information for dissemination and preservation.
<i>Service Executive/Program Manager</i>	Sasi Pillay
<i>Executing Center Project/Investment Mgr</i>	Lynn Heimerl (LaRC)
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 3.2 – Expand IT Partnerships
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> ○ \$0 - No dedicated modernization budget ○ Links to budget item 5 – Scientific and Technical Information/STI ○ \$200K overguide requested for E-DAA
<i>Success Indicator and Linkage to APG</i>	<p>Multi-year Objectives</p> <ul style="list-style-type: none"> ○ Provide more effective end-to-end information capture, review, organization, dissemination, and preservation for Agency ○ Progress toward reducing STI systems to one, and provide NASA's only Agency-wide SBU-rated system for internal and public STI dissemination that ensures preservation via National Archives and Records Administration (NARA) ○ Completion of the digitization of the STI collection (NACA & NASA) dating back to 1916 ○ Provide increased efficiency in accessing Agency STI
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> ○ Create draft of the Future State for the STI Model by Q1, FY12 ○ Input to update NFS and Agency STI PIC and GIC by Q1, FY12 to ensure all information will be digitized ○ Develop CASI warehouse clearance plan by Q4, FY12 <p>Incremental work during FY12:</p> <ul style="list-style-type: none"> ○ Work on Phase 1 of STI systems modernization (PDR via LaRC) ○ Continue digitizing STI legacy paper and fiche from NASA and NACA's archive
<i>Assumptions, Risks, and Dependencies</i>	E-DAA, which is an integral input into the modernized STI system, cannot expand without \$200K plus-up to baseline, starting in FY12 and extending to future FYs. (Note: Baseline STI funding is \$6,690K.)

9.2. FY12 OCIO Tactical Plan Investments for IRM Strategic Goal 2

IRM Strategic Goal 2	Enhance and strengthen IT security and Cyber security to ensure the integrity, availability, and confidentiality of NASA's critical data and IT assets.
IRM Strategic Objective 2.1	Improve NASA's capability to prevent, or to quickly and effectively respond to, any potential IT security incidents and centrally manage outcomes and the Agency's response.
FY12 Tactical Objective 2.1.1	Improve the capabilities of the NASA Security Operations Center (SOC).
FY12 Budget for Tactical Objective	\$0K
FY12 Tactical Initiative 2.1.1.1	Expand the coverage of SOC solutions across the Agency while continuously moving towards preventative countermeasures.
<i>Service Executive/Program Manager</i>	Howard Whyte
<i>Executing Center Project/Investment Mgr</i>	John Ray (ARC)
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Improved prevention, discovery and management of exploitable threats and vulnerabilities that place information assets at risk
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Expand event correlation to include more locations while reducing false positives o Establish causal analysis feedback loop to CIOs and ITSMs o Improve Sinkhole Server based-on public domain or COTS software, and provide awareness to users who are re-directed to the Sinkhole Server, by 02/15/12 o Integrate SOC information with ASUS/ACES/ITSEC-EDW for analysis and trending – correlation of incidents to vulnerability scans and misconfiguration data. Tie incidents to system A&A information from NSAAR
<i>Assumptions, Risks, and Dependencies</i>	Infrastructure upgrades, data sharing between SOC and NOC

FY12 Tactical Initiative 2.1.1.2	Increase the use of intrusion detection sensors monitored by the NASA SOC.
<i>Service Executive/Program Manager</i>	Howard Whyte
<i>Executing Center Project/Investment Mgr</i>	John Ray (ARC)
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o APG 5.2.2.2: AMO-12-13: Implement intrusion detection sensors monitored by the NASA SOC on 75 percent of NASA institutional network monitoring sites. o Metrics from new sensor deployment provide diagnostic and historical trending configuration information back to system owners.
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	o Implement intrusion detection sensors monitored by the NASA SOC on 90 percent of NASA institutional network monitoring sites and 25 percent of NASA Mission networks by 09/30/12.

	<ul style="list-style-type: none"> ○ Provide incident status reporting, trends, mitigations and prevention information to ITSATC for timely awareness and training of new threats. ○ Establish operating level and service level agreements with defined metrics for SOC customers.
<i>Assumptions, Risks, and Dependencies</i>	

IRM Strategic Objective 2.2	Achieve a risk-based balance between security, system operability, and the user's experience.
FY12 Tactical Objective 2.2.1	Enable enterprise integrated risk management governance structure following NIST 800-39 through NIST 800-30 Rev1 while moving towards continuous monitoring.
FY12 Budget for Tactical Objective	\$250K
FY12 Tactical Initiative 2.2.1.1	Build out the risk management framework (800-37Rev1) as a core component of the systems development lifecycle.
<i>Service Executive/Program Manager</i>	Marion Meissner
<i>Executing Center Project/Investment Mgr</i>	David Campbell (KSC)
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> ○ \$250K ○ Links to budget item 26 – ASUS ITSEC-EDW
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> ○ Reduction in the number of defects discovered during vulnerability scans. ○ Reduction in the number of audit findings relative to the A&A process and POA&M ○ Reduced cycle time for the A&A process ○ Execute Continuous Monitoring strategy ○ Expand Web Application Security Program (WASP) – feedback to developers on needed code improvements ○ Increase number of devices with real-time monitoring
<i>Due Date</i>	06/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> ○ Integrate system categorization and control selection, implementation, assessment/tailoring, authorization and monitoring into the lifecycle with a focus on configuration, change and release management. ○ Develop and execute risk management framework. ○ Standardize the A&A process across NASA including input into all GRC tools (NSAAR, etc.). ○ Develop enterprise risk management strategy. ○ Pilot diagnostic and historical trending reporting in the Information Security Dashboard using data from ITSEC-EDW based upon NIST 800-30Rev1. ○ Complete phased deployment of Continuous Monitoring strategy.
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Objective 2.2.2	Ensure that I3P services prioritize implementation of security requirements based on assessment of risks.
FY12 Budget for Tactical Objective	\$100K
FY12 Tactical Initiative 2.2.2.1	Support the I3P services areas in obtaining and maintaining the appropriate authority to operate.
<i>Service Executive/Program Manager</i>	Dana Mellerio
<i>Executing Center Project/Investment Mgr</i>	NSSC, MSFC, HQ/OCIO
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$100K o No budget linkage assigned
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o ACES, NICS and other I3P service vehicles obtain and maintain authority to operate commensurate to their current progress in the systems development lifecycle o Strict adherence to the risk management framework and systems development lifecycle, A&A standards o Improved configuration management standardization and standards use
<i>Due Date</i>	03/31/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Establish data integration with ITSEC-EDW. o Provide threat environment information to ITSATC. o Consistent and timely delivery of A&A documentation to provided GRC tool (NSAAR, RSAM, etc.). o IATT/IATO/ATO for ACES by 10/03/11 o IATT/IATO/ATO for NICS by FY12, Q2
<i>Assumptions, Risks, and Dependencies</i>	

IRM Strategic Objective 2.3	Nurture a culture of security awareness that improves the accountability of IT resources and “bakes” security into IT solutions and everyday work habits.
FY12 Tactical Objective 2.3.1	Assess the current level of security awareness of the NASA user community and specific gaps in order to determine the most effective methods for a future awareness campaign.
FY12 Budget for Tactical Objective	\$85K
FY12 Tactical Initiative 2.3.1.1	Complete a user awareness survey and analyze responses.
<i>Service Executive/Program Manager</i>	Evelyn Davis
<i>Executing Center Project/Investment Mgr</i>	Rich Kurak (GRC)
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$85K (includes subscription to IREC for \$35K) o Links to budget item 33 – IT Security Awareness & Training Center
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Receive 400-800 survey responses o Comparison of results to other public and private sector organizations
<i>Due Date</i>	06/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Complete user survey using the Information Risk Executive Council (IREC) User Awareness Survey tool and evaluate responses by FY12, Q3
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 2.3.1.2	Establish a just-in-time security awareness program.
<i>Service Executive/Program Manager</i>	Valarie Burks
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Deliver awareness messaging as threats are learned and/or discovered from the SOC, US-CERT, and industry o Reduction in user incidents due to malware or adversary activities o Establish federated awareness team across NASA
<i>Due Date</i>	06/30/12
<i>Deliverables and Milestones</i>	o Weekly, monthly and quarterly threat messaging across available media. o Historical trending metrics based upon threats, messaging and incidents. o Launch the IT Security and Privacy Awareness Campaigns. o Complete deployment of SUIMs to improve preparation and tracking of PIAs, SORNs, etc.
<i>Assumptions, Risks, and Dependencies</i>	

IRM Strategic Objective 2.4	Achieve an integrated and adaptive enterprise security posture by increasing interoperability, visibility, and innovation across NASA's enterprise security architecture.
FY12 Tactical Objective 2.4.1	Meet new DHS requirements for monthly automated reporting in Cyberscope.
FY12 Budget for Tactical Objective	\$50K
FY12 Tactical Initiative 2.4.1.1	Analyze new monthly reporting formats from DHS, produce automated data feeds from ITSEC-EDW, and report monthly in Cyberscope by the required deadline.
<i>Service Executive/Program Manager</i>	Marion Meissner
<i>Executing Center Project/Investment Mgr</i>	David Campbell (KSC)
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$50K o Links to budget item 26 – ASUS ITSEC-EDW
<i>Success Indicator and Linkage to APG</i>	o Cyberscope reporting deadlines are met o Complete Cyberstat review
<i>Due Date</i>	10/05/11 (ongoing, monthly)
<i>Deliverables and Milestones</i>	o Develop necessary reporting mechanisms to meet monthly DHS Cyberscope reporting deadlines by 10/05/11 o Develop Cyberstat Corrective Action Plan.
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Objective 2.4.2	Create an environment for forward-looking, enterprise-based security technologies and solutions.
FY12 Budget for Tactical Objective	\$0K
FY12 Tactical Initiative 2.4.2.1	Establish, document and communicate a standard NASA IT Security reference architecture.
<i>Service Executive/Program Manager</i>	Valarie Burks
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Document and understand all potential enterprise security solutions across NASA. o Align technologies to controls used in the risk management framework.
<i>Due Date</i>	03/01/12
<i>Deliverables and Milestones</i>	o Complete center SWOTs gathering security technology asset information. o Align and compare assets across the enterprise based upon functionality and capability. o Establish common controls based upon security assets. o Launch 1-2 new, innovative services or service enhancements.
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Objective 2.4.3	Increase the protection of NASA's enterprise information resources by improving the security of our Agency IT services.
FY12 Budget for Tactical Objective	\$7,501K
FY12 Tactical Initiative 2.4.3.1	Develop and implement Agency policy and capabilities for the use of approved credentials for access to NASA networks and systems.
<i>Service Executive/Program Manager</i>	Leslie Cahoon
<i>Executing Center Project/Investment Mgr</i>	MSFC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.3 - Empower Mobile Workforce
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$7,501K o Links to budget item 4 – Identity Credential Access Management (ICAM)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Updated NPR and handbooks published in NODIS o ICAM Implementation Plan approved and published o Provide Agency identity, credential and access management services that meet defined service level metrics o Smartcard usage in NCAD increases by 100% (to 20% of users) o Smartcard-enabled VPNs increase from 2 to 5 and Smartcard-enabled Corporate wireless increases from 2 to 5 o 100% of VPN connections to internal NASA networks require smart card authentication (longer-term goal) o All center VPNs are PIV enabled and, eventually, a common VPN infrastructure is used Agency-wide (longer-term goal) o 50% of at risk RSA tokens are replaced, RSA token usage decreases by 10%, and security incidents due to RSA breach remain at 0
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Fulfill Cyberstat commitment to provide a PIV Smartcard feasibility study by 09/20/2011 o Provide approved ICAM Implementation Plan by 9/30/2011 o Review/adjust NPR 2841.1 as needed by 12/31/11 o Implement RSA Token replacement aligned with ACES waves with completion by 03/01/12 o Enable smart-card use on VPN and corporate wireless (Miglin) <ul style="list-style-type: none"> - Publish VPN standard by 12/15/11 - DRFC pilot on smart-card enabled corporate wireless by 01/01/12 - Update Corporate Wireless Standard by 06/01/12 o Increase smart-card use on desktops (Irwin, Sprague) <ul style="list-style-type: none"> - Pilot smart-card only use by 07/31/12 - Develop plan for mandatory smart-card only use by 09/30/12 o Enable mobile authentication by application (Irwin, Beverly) o Identify ICAM metrics and KPIs (Irwin)
<i>Assumptions, Risks, and Dependencies</i>	Achieving 100% smartcard authentication on all VPNs assumes non-PIV smartcard issuance to NASA external partners

9.3. FY12 OCIO Tactical Plan Investments for IRM Strategic Goal 3

IRM Strategic Goal 3	Identify, test, and adopt new information technology that will make NASA's missions more capable and affordable.
IRM Strategic Objective 3.1	Develop effective architectural roadmaps for each NASA domain that reflect future mission requirements and provide an effective management tool for identifying and selecting new information technology.
FY12 Tactical Objective 3.1.1	Institutionalize an IT Lifecycle Governance Framework (based on ITIL v3), and create Enterprise Architecture artifacts (Enterprise Target-State and Transition Plan) that guides Agency-wide IT investment decisions and solution implementations toward achieving NASA's strategic goals.
FY12 Budget for Tactical Objective	\$750K
FY12 Tactical Initiative 3.1.1.1	Develop, maintain, and communicate an enterprise target state and transition plan that accounts for the six technical domains that make up all IT solutions.
<i>Service Executive/Program Manager</i>	Will Peters
<i>Executing Center Project/Investment Mgr</i>	OCIO
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$750K o Links to budget item 22 – Enterprise Architecture Support
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Draft baseline strategy provided for prioritized areas of the enterprise and six technical domains, revised quarterly o Baseline strategy communicated to IT stakeholders Agency-wide o Draft NPR 2830 submitted for Agency review on schedule
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Provide a draft baseline strategy (target state and transition plan) for prioritized areas of the enterprise and six technical domains (End User, Host, Information, Applications, Communication, and Security) in FY12, Q1 o Draft NPR 2830 submitted for Agency review in FY12, Q2 o Provide quarterly revisions to the enterprise and domain strategy documents in FY12 Q2, Q3 and Q4
<i>Assumptions, Risks, and Dependencies</i>	<ul style="list-style-type: none"> o NPD 2830 will be approved by the end of FY12, Q1. o The Agency will adopt a well defined IT lifecycle governance process that uses enterprise architecture artifacts (i.e. Target State, Transition Plan) to guide investment decisions and monitor investment performance. o There is sufficient Agency-wide participation in the development and use of enterprise architecture artifacts.

FY12 Tactical Objective 3.1.2	Develop and implement a technology infusion framework to guide the evaluation and implementation of new IT services to create a positive return on investment for the Agency.
FY12 Budget for Tactical Objective	\$1,123K
FY12 Tactical Initiative 3.1.2.1	Develop a framework and methodology for identifying and assessing opportunities for innovation and new technology to improve IT customer satisfaction, service delivery, and efficiency.
<i>Service Executive/Program Manager</i>	Sasi Pillay , J.C. Duh; Service Executives
<i>Executing Center Project/Investment Mgr</i>	HQ, JSC
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Establishment of a list of technology infusion candidates for prioritization by the relevant governance boards and for CP&G budget planning and allocation.
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	o Define framework for assessing and integrating new technology into the NASA service areas by 12/31/11 (Pillay, Duh) o Define methodology to measure the effectiveness of the implemented technology and utilize results to improve new technology innovation assessments (Pillay, Duh)
<i>Assumptions, Risks, and Dependencies</i>	Dependency on creation of the OCIO BCA template to enable more effective ranking of IT innovation opportunities and effective engagement of the CTO and EA communities.

FY12 Tactical Initiative 3.1.2.2	Facilitate the development of ideas, proofs of concept, prototypes and pilots for information management improvements that have enterprise service potential.
<i>Service Executive/Program Manager</i>	Sasi Pillay
<i>Executing Center Project/Investment Mgr</i>	Allison Wolff (JSC)
<i>Secondary Linkage to IRM Strategy</i>	3.3 Innovate & Collaborate
<i>FY12 Budget (Adjusted)</i>	o \$1,123K o Links to budget item 20 – Enterprise IT Lab
<i>Success Indicator and Linkage to APG</i>	o Award and evaluate 12 (estimated) Innovation Projects o Complete at least one pilot project that progresses to becoming an OCIO service
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	o IT Labs Project Call, FY12 Q2 o Solicit and award 4-6 projects with OCIO service model potential, FY12 Q2 o Q2 Project Closeout and Q3 Project Call, FY12 Q3 o Q3 Project Closeout and Q4 Project Call, FY12 Q4
<i>Assumptions, Risks, and Dependencies</i>	Dependency on creation of the OCIO BCA template to enable more effective ranking of IT innovation opportunities and effective engagement of the CTO and EA communities.

IRM Strategic Objective 3.2	Expand partnerships with other Government Agencies and commercial partners to identify best practices in the acquisition, development, and maintenance of new IT, particularly in light of the proposed commercialization of space travel.
FY12 Tactical Objective 3.2.1	Identify and execute opportunities to increase transparency and enhance collaboration with other Agencies and organizations.
FY12 Budget for Tactical Objective	\$650K
FY12 Tactical Initiative 3.2.1.1	Coordinate events that support cross-Agency partnerships and collaborative opportunities.
<i>Service Executive/Program Manager</i>	Sasi Pillay
<i>Executing Center Project/Investment Mgr</i>	Nicholas Skytland
<i>Secondary Linkage to IRM Strategy</i>	3.3 Innovate & Collaborate
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$650K o Links to budget item 21 – Open Gov
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Increase access to and incentivize the use and development of NASA data and applications o Release of an updated Open Government Plan, an Open Source Policy/Guidance, and NASA funded data
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Random Hacks of Kindness, FY12 Q1 o Launch of code.nasa.gov and GitHub:FI functionality, FY12 Q1 o Release Open Government Plan v2, FY12 Q2 o Hold 2nd Annual Open Source Summit, FY12 Q3 o International Space Apps Challenge, FY12 Q3 o Open Source Guidance, FY12 Q4 o Expansion of data.nasa.gov, FY12 Q4
<i>Assumptions, Risks, and Dependencies</i>	

IRM Strategic Objective 3.3	Identify innovative information technologies and create active participation opportunities for NASA scientists and engineers to collaborate on missions.
FY12 Tactical Objective 3.3.1	Increase the positive impact of collaboration across NASA.
FY12 Budget for Tactical Objective	\$496K
FY12 Tactical Initiative 3.3.1.1	Promote knowledge sharing and collaboration by effectively communicating IT Labs initiatives, projects and resources across NASA.
<i>Service Executive/Program Manager</i>	Sasi Pillay
<i>Executing Center Project/Investment Mgr</i>	Allison Wolff (JSC)
<i>Secondary Linkage to IRM Strategy</i>	1.5 Access to Information
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$496K o Links to budget item 23 – Collaboration@NASA (IRRP mandate)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o APG 5.2.2.5: AMO-12-16: Implement a Communications and Collaboration Lab. o Promotion of a culture of collaboration at NASA by making information more discoverable, including increased mobile device and cloud integration as possible o Streamline the processes for acquisition and integration of collaboration technology
<i>Due Date</i>	12/31/11
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Release IT Labs Collaboration platform, FY12 Q1
<i>Assumptions, Risks, and Dependencies</i>	

9.4. FY12 OCIO Tactical Plan Investments for IRM Strategic Goal 4

IRM Strategic Goal 4	Provide enterprise resources and processes that foster mission success and allow NASA to attract and retain a highly performing IT workforce.
IRM Strategic Objective 4.1	Align NASA IT workforce competencies with desired competency levels, and provide career enhancing opportunities and training to all IT employees.
FY12 Tactical Objective 4.1.1	Provide increased visibility into the current competencies of NASA's existing and incoming IT workforce for use with identifying and resolving IT competency gaps.
FY12 Budget for Tactical Objective	\$0

FY12 Tactical Initiative 4.1.1.1	Obtain updated competency information for NASA's IT workforce for existing employees and train incoming personnel to provide competency information.
<i>Service Executive/Program Manager</i>	Karen Harper
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Increased awareness and training across NASA's IT workforce regarding the Competency Management System (CMS) o Updated competency information in CMS from 15% of the IT workforce by completion of Phase 1 (April 30, 2012) o Updated competency information in CMS from 25% of the IT workforce by completion of Phase 2 (September 30, 2012) o Expanding visibility into the current IT workforce competencies for use with future competency gap analysis
<i>Due Date</i>	09/30/12 (Initial Phases)
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Provide a phased reintroduction of CMS to the IT workforce <ul style="list-style-type: none"> - Phase 1 Centers by 04/30/12 - Phase 2 Centers by 09/30/12 - Additional phases in FY13 as required
<i>Assumptions, Risks, and Dependencies</i>	Identification of the existing IT workforce may be hampered due to potentially outdated competency data from as far back as 2006.

IRM Strategic Objective 4.2	Utilize innovative methods, including social media, to attract a productive IT workforce focused on efficiently achieving NASA's IT mission.
FY12 Tactical Objective 4.2.1	Foster awareness of Science, Technology, Engineering, and Math (STEM) education with a perspective on information technologies to help cultivate the next-generation of NASA's IT workforce.
FY12 Budget for Tactical Objective	\$0

FY12 Tactical Initiative 4.2.1.1	Participate in the STEMConnector Project to collaborate and develop networks with NASA's next-generation IT workforce.
<i>Service Executive/Program Manager</i>	Karen Harper
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Increased collaboration with STEM communities to promote the importance of STEM education and employment opportunities o Expand NASA's access to the next-generation IT workforce to facilitate the future acquisition of new talent
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	o Actively participate in STEMConnector during 2011/2012
<i>Assumptions, Risks, and Dependencies</i>	

IRM Strategic Objective 4.3	Develop and improve enterprise best practices for governance, shared services, capital planning, IT project management, and performance management.
FY12 Tactical Objective 4.3.1	Improve IT project coordination and success.
FY12 Budget for Tactical Objective	\$492K

FY12 Tactical Initiative 4.3.1.1	Implement disciplined system engineering practices and an integrated project management toolset to increase insight into project status and dependencies across I3P and Centers.
<i>Service Executive/Program Manager</i>	Bob Benedict, J.C. Duh
<i>Executing Center Project/Investment Mgr</i>	ARC
<i>Secondary Linkage to IRM Strategy</i>	Strategic Objective 1.5 - Efficient/Effective Access to Information
<i>FY12 Budget (Adjusted)</i>	o \$492K (for EPMS) o Links to budget items 18 - I3P Program Office and 14 - Enterprise Project Management System (EPMS)
<i>Success Indicator and Linkage to APG</i>	o Handbooks used by 90% of projects subject to Agency IT PMB and 75% of projects subject to Center IT PMB governance. o 18 months following availability of handbooks, 75% of projects subject to Agency/Center IT PMB governance complete consistent with the technical/requirements, schedule, and cost parameters established at KDP C.
<i>Due Date</i>	07/31/12
<i>Deliverables and Milestones</i>	o Provide handbook on IT project management and EPMS practices by 03/01/12 (Benedict) o Provide handbook on IT system engineering practices by 04/01/12 (Benedict) o Complete roll out of EPMS to Centers by 07/31/12 (Duh)
<i>Assumptions, Risks, and Dependencies</i>	Dependency: Funding to complete the EPMS rollout to the Centers.

FY12 Tactical Objective 4.3.2	Improve investment justification in a consistent manner, and improve investment performance through proactive reviews and analysis that lead to concrete action.
FY12 Budget for Tactical Objective	\$0

FY12 Tactical Initiative 4.3.2.1	Develop a business case analysis template to enable management to consistently determine the business value of a proposed IT investment and if the value is achievable and desirable as compared to the relative merits of alternative investments.
<i>Service Executive/Program Manager</i>	Dale Hupp
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Completed business cases provide an effective means to independently evaluate IT investment proposals (related to 25 Point Plan #21) o Potential future metric: % of executed business case investments perform within "x% variance" of the estimated execution cost o Potential future metric: % of executed business case investments perform within "y% variance" of the projected annualized net benefits
<i>Due Date</i>	03/31/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Define Business Case Analysis template 03/31/12 o Provide training and begin utilizing template to evaluate and compare investment proposals beginning 03/31/12
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 4.3.2.2	Identify underperforming IT investments and initiate turn-around or termination as appropriate.
<i>Service Executive/Program Manager</i>	Lara Petze
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o \$0 (No specified AITS budget)
<i>Success Indicator and Linkage to APG</i>	o Turn-around or terminate of one-third of all underperforming IT investments by June 2012 (25 Point Plan #22)
<i>Due Date</i>	06/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Define criteria and process for identifying underperforming IT investments o Turn around or terminate underperforming IT investments (e.g., utilize the TechStat model)
<i>Assumptions, Risks, and Dependencies</i>	

FY12 Tactical Initiative 4.3.2.3 OCIO Has Support Role Only	Support the implementation of a central business office to manage contract administration, funding and service level reporting for I3P services.
<i>Service Executive/Program Manager</i>	Pam Wolfe
<i>Executing Center Project/Investment Mgr</i>	NSSC
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	o Not applicable – OCIO has support role only
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o Simplify/reduce Center interfaces associated with I3P funding, billing, and monthly reconciliation for all contracts/services o Standardize business processes across all I3P service areas o Reduce staffing and cost for administrative support functions o Leverage NSSC administrative support processes, business systems, financial and contract management expertise for I3P
<i>Due Date</i>	10/01/11
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o EAST IOC by 10/01/11 o Business Office Readiness Review for Web Services by 11/01/11 o Business Office performance aggregation by 01/31/12 (Vernon)
<i>Assumptions, Risks, and Dependencies</i>	OCIO is supporting the Business Office creation; NSSC is the lead.

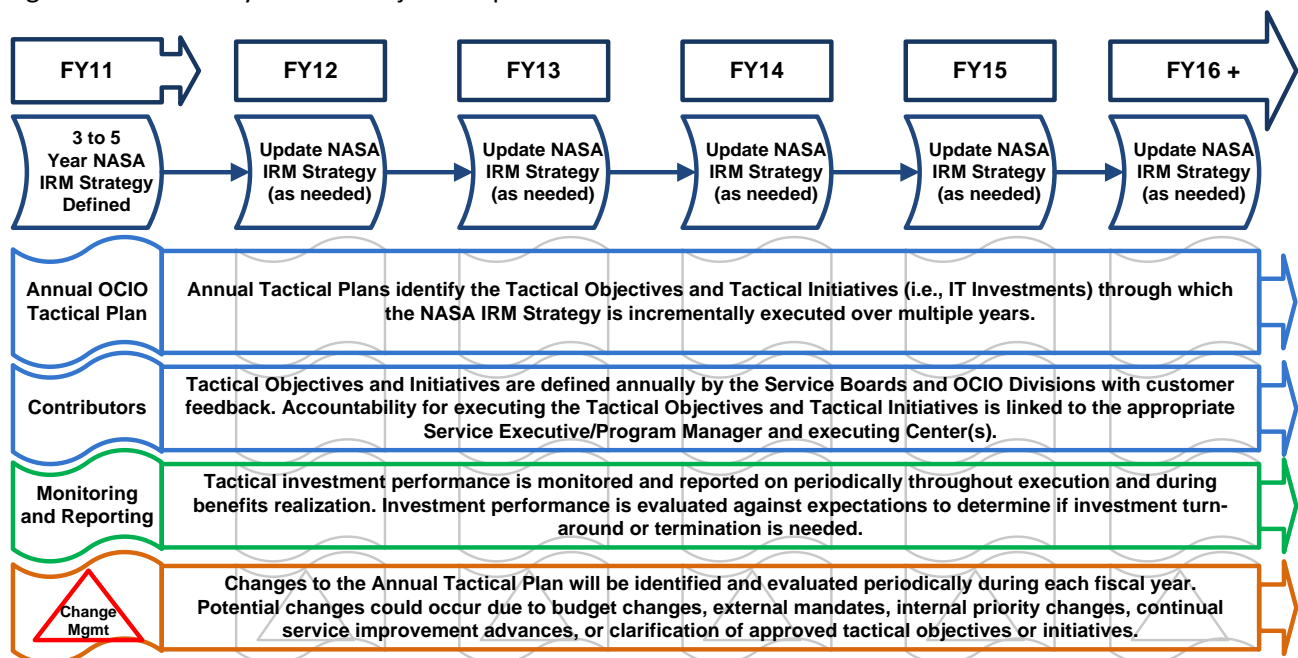
IRM Strategic Objective 4.4	Improve two-way communications with our internal and external customers regarding the IT services we provide.
FY12 Tactical Objective 4.4.1	Increase stakeholder awareness of the OCIO and ensure that Centers are fully informed of OCIO initiatives and the services provided.
FY12 Budget for Tactical Objective	\$205K

FY12 Tactical Initiative 4.4.1.1	Provide effective communications regarding Agency IT service and activities, including the I3P transition.
<i>Service Executive/Program Manager</i>	Eldora Valentine
<i>Executing Center Project/Investment Mgr</i>	HQ
<i>Secondary Linkage to IRM Strategy</i>	None
<i>FY12 Budget (Adjusted)</i>	<ul style="list-style-type: none"> o \$205K o Links to budget item 41 – OCIO Management
<i>Success Indicator and Linkage to APG</i>	<ul style="list-style-type: none"> o 4 IT Talk issues produced o Town Hall meetings held for all 10 Centers o Written guidance and framework provided on communications strategy and messages o Achieve "very good or better" responses to communications customer satisfaction surveys and achieve results of 8 or better from the Service Communication Leads survey
<i>Due Date</i>	09/30/12
<i>Deliverables and Milestones</i>	<ul style="list-style-type: none"> o Produce I3P Town Hall meeting for NASA users by 09/16/11 o Provide messaging specific to service-area transitions (ad hoc) o Produce a follow-up I3P Town Hall meeting by 12/31/12 o Produce IT Talk newsletter (4 issues per year, every 3 months) o Support the OCIO Strategic Communications Committee for Agency message coordination o Write and produce IT talking-points, news, and featured stories
<i>Assumptions, Risks, and Dependencies</i>	Center participation in producing content is critical. Survey results depend on feedback about communications effectiveness.

10. Tactical Plan Performance Measurement, Monitoring, and Change Management

OCIO's annual Tactical Plan represents a portfolio of investments identified to incrementally achieve the longer term IRM strategy for management and delivery of Agency information resources. The portfolio management team designs, evaluates, and updates the tactical investment mix to achieve the strategy based on assumptions about future performance, taking into account ongoing investment performance, environmental changes, and the tradeoffs between expected investment value and delivery risks.

Figure 6 – Tactical Cycles and Major Components



10.1. Measurement

Performance of the Tactical Objectives toward the IRM Strategic Plan can be measured through the identification and use of Critical Success Factors (CSFs) and Key Performance Indicators (KPIs) linked at both levels of planning. For example, Strategic Objective 1.2 calls for increased efficiency in the delivery and operations of IT services, which can equate to a reduction in annualized costs to run a specific set of IT services and support. Therefore, one Key Performance Indicator could measure the contributions of relevant Tactical Initiatives to the Critical Success Factor of reducing annualized IT delivery and operations costs by means of contract consolidation, help desk centralization, data center consolidation, and other FY12 initiatives. To support the use of CSFs and KPIs, the underlying measurement data, calculations, and metrics used to report these performance criteria must be defined and transformed into useful, standardized information. Additionally, cycles for collecting this measurement data must be defined properly so as to provide timely performance monitoring and reporting to support tactical and strategic decision-making as shown in the figure below.

Figure 7 – Performance Management and Measurement

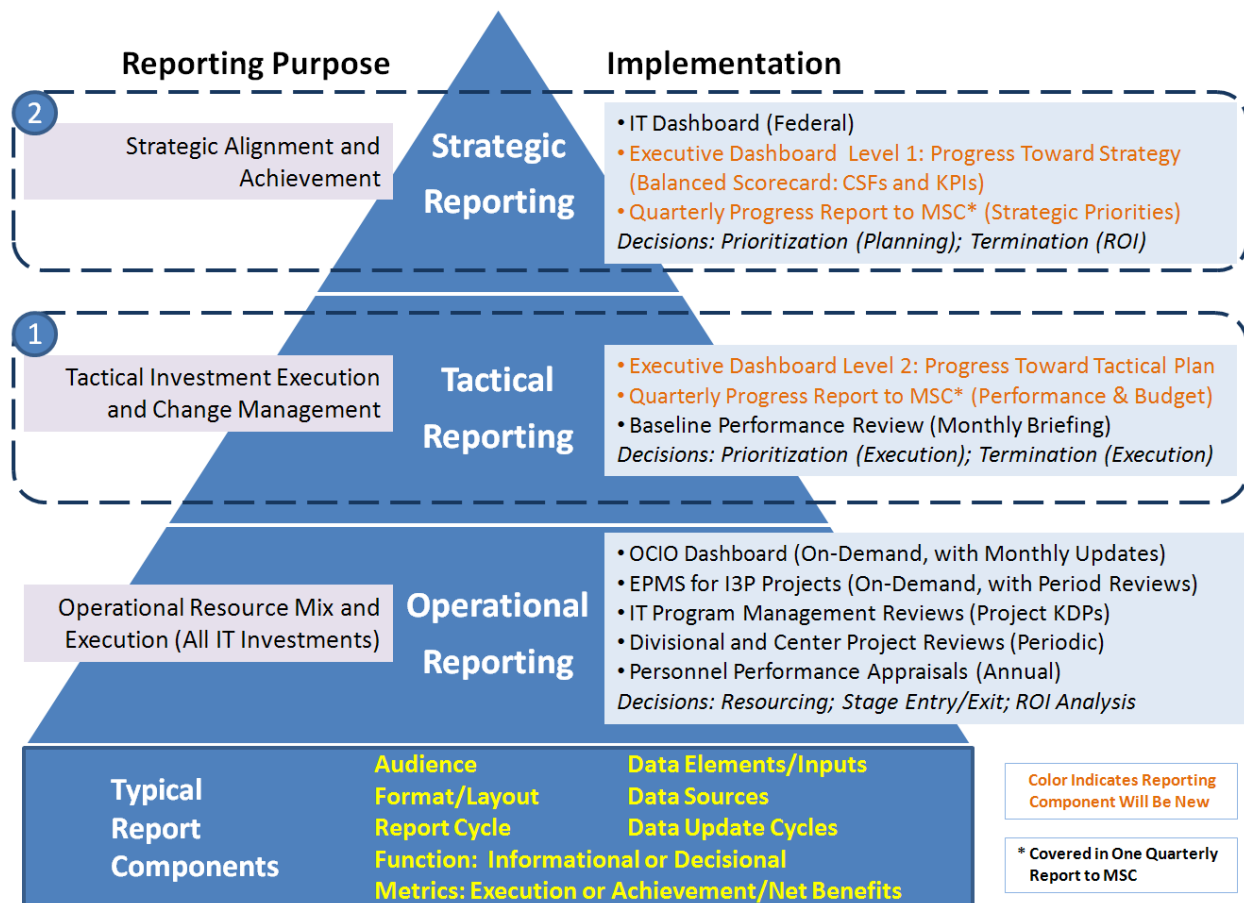


10.2. Monitoring and Reporting

To add value to the measurement data once the data has been collected and transformed, interpretations of the data must be defined to determine if an investment is performing as expected, better than expected, or worse than expected. Two investment cycles should be monitored: 1) tactical initiative planning and execution (or, how well are we executing what we planned to deliver), and 2) the actual results of the executed initiatives (or, is the investment/tactic providing the performance towards the strategy that we expected to obtain).

Portfolio reviews should be held periodically to evaluate the execution of the tactical investments as well as the performance of executed investments. To increase the effectiveness of the portfolio reviews, the review process should have a defined purpose, audience, review cycle and frequency, an agreed-upon performance measurement format, and the data interpretation key needed for decision-making. Finally, a well-understood process is needed to identify, evaluate, resolve, and monitor execution and performance issues.

Figure 8 – Options for Performance Monitoring and Reporting



10.3. Change Management

As with any planning process, a level of change should be expected during the Tactical Plan execution and operations phase, such as changes due to budget volatility, modified OCIO oversight and responsibility, shifting customer priorities, disruptive technologies, and new mandates. These environmental forces require ongoing evaluation, oversight, and change management to effectively evaluate and adapt the Tactical Plan to changing conditions. A framework and methodology for providing this oversight and management will be defined in order to minimize the disruptiveness caused by change and to facilitate the turnaround or termination of underperforming investments.

10.4. FY12 OCIO Annual Performance Goals (APGs)

NASA Strategic Objective 5.2.2 Provide information technology that advances NASA space and research program results and promotes open dissemination through efficient, innovative, reliable, and responsive services that are appropriately secure and valued by stakeholders and the public.

Performance Goal 5.2.2.1: By 2014, consolidate and centralize the management of information technology (IT) enterprise services for end user services, communications, enterprise applications, enterprise data centers, and web services.

APG 5.2.2.1: AMO-12-12

Achieve Initial Operating Capability (IOC) for one Service Office (NASA Enterprise Data Center) and Full Operational Capacity (FOC) for the initial five Service Offices as part of the NASA Information Technology Infrastructure Integration Program (I3P).

Agency IT Services (AITS)

Performance Goal 5.2.2.2: By 2015, implement a capability to identify and prevent unauthorized intrusions on the NASA institutional and mission networks.

APG 5.2.2.2: AMO-12-13

Implement intrusion detection sensors monitored by the NASA Security Operations Center (SOC) on 75 percent of NASA institutional network monitoring sites.

Agency IT Services (AITS)

Performance Goal 5.2.2.3: By 2014, decommission the Agency Administrative mainframe computer.

APG 5.2.2.3: AMO-12-14

Migrate or retire all administrative systems from the Agency Administrative mainframe computer.

Agency IT Services (AITS)

Performance Goal 5.2.2.4: By 2015, reduce data center energy consumption by 30 percent.

APG 5.2.2.4: AMO-12-15

Reduce the number of NASA data centers by 10 percent.

Agency IT Services (AITS)

Performance Goal 5.2.2.5: By 2015, establish at least four innovation laboratories that provide more effective, efficient, and responsive information technology (IT) across NASA in support of the Agency's Mission.

APG 5.2.2.5: AMO-12-16

Implement a Communications and Collaboration Lab that conducts five evaluations to assess new approaches for the dissemination of information, and real-time, multi-participant knowledge creation and management.

Agency IT Services (AITS)

Source: FY12 NASA Budget (CAS) at <http://www.nasa.gov/news/budget/index.html>

11. Abbreviations and Glossary

This section lists the abbreviations used in this Tactical Plan and provides an expanded definition for each item.

Table 6 – Abbreviations

NASA Centers and Divisions	Expanded
ARC	Ames Research Center
DFRC	Dryden Flight Research Center
GRC	Glenn Research Center
GSFC	Goddard Space Flight Center
HQ	NASA Headquarters
JSC	Johnson Space Center
JPL	Jet Propulsion Laboratory
KSC	Kennedy Space Center
LaRC	Langley Research Center
MAF	Michoud Assembly Facility (Marshall)
MSFC	Marshall Space Flight Center
NSSC	NASA Shared Services Center
SSC	Stennis Space Center
OCIO Organization	Expanded
CIO	Chief Information Officer
OCIO	Office of the Chief Information Officer
CPGD	Capital Planning and Governance, in OCIO
ESID	Enterprise Services and Integration, in OCIO
ITSD	Information Technology Security Division, in OCIO
TID	Technology and Innovation Division, in OCIO
CTO for IT	Chief Technology Officer for IT
Governance	
MSC	Mission Support Council
ITMB	IT Management Board
BSMB	Business Systems Management Board
IT PMB	IT Program Management Board
ECAB	Enterprise Change Advisory Board
ABPL	Agency Business Process Lead
I3P Terms	Expanded
I3P	NASA IT Infrastructure Integration Program, a procurement of services to provide agency-wide management, integration, and delivery of IT infrastructure services.
ACES	Agency Consolidated End-User Services contract
EAST	Enterprise Applications Service Technologies contract
ESD	Enterprise Service Desk
NEACC	NASA Enterprise Applications Competency Center, at Marshall Space Flight Center (part of EAST)
ODIN	The Outsourcing Desktop Initiative for NASA, which is being replaced by ACES/HP
NICS	NASA Integrated Communications Services contract
WEST	Web Enterprise Services and Technologies contract

Project Milestones	Expanded
KDP	Key Decision Point
SRR	Software Requirements Review
CDR	Critical Requirements Review
PDR	Preliminary Design Review
TRR	Test Readiness Review
ORR	Operational Readiness Review
SORR	Service Office Readiness Review
IOC	Initial Operating Capability
FOC	Final Operating Capability
ECD	Estimated Completion Date

General Term or Acronym	Expanded
\$K	Thousands (1000s) of Dollars (used for financial figures)
AITs	Agency Information Technology Services
AMO	Agency Management & Operations
APG	Annual Performance Goal
ASUS	Agency Security Update System
ATO	Authorization to Operate
BCA	Business Case Analysis, analysis performed to verify an investment's soundness
C2NOC	Consolidated Corporate Network Operations Center
CAS	Cross-Agency Support provides critical mission support capabilities
CASI	NASA Center for AeroSpace Information
CIMA	Center for Internal Mobile Apps
Cloud	Cloud computing is the delivery of computing as a service rather than a product, whereby shared resources, software, and information are provided to computers and other devices as a utility (like the electricity grid) over a network.
CMS (OHCM)	Competency Management System is an Agency-wide application used to measure and monitor the Agency's knowledge base. CMS helps the Agency match the talents and strengths of their employees with the positions that can best utilize those skills.
CMS (Web)	Content Management System, used to hold content for the Agency's Web Services
COTS	Commercial off-the-shelf, such as a software product
CPI	Continual Process Improvement (an ITIL term)
CSF	Critical Success Factor
CSI	Continual Service Improvement (an ITIL term)
CSPA	Cost, Schedule Performance Agreement
DAR	Data at Rest
DHS	Department of Homeland Security
EA	Enterprise Architecture, NASA-wide Information Technology architecture
E-DAA	Electronic Document Availability Authorization
eGov (E-gov)	Office of E-Government and Information Technology develops and provides direction in the use of Internet-based technologies to make it easier for citizens and businesses to interact with the Federal Government, save taxpayer dollars, and streamline citizen participation
EP	Elevated Privileges
EPMS	Enterprise Project Management System
ETADS	The Emerging Technology and Desktop Standards group at Glenn Research Center is responsible for establishing and maintaining hardware, software, and security configuration standards for end user computing devices

ETS2	E-gov Travel Service 2
EUS	End User Services, a set of IT services largely met through the ACES contract
FAR	Federal Acquisition Regulation
FDCCI	Federal Data Center Consolidation Initiative
FISMA	Federal Information Security Management Act of 2002
FY	Fiscal Year; NASA's fiscal year begins on October 1 annually for financial reporting
GIC	Grant Information Circular
GitHub:FI	GitHub Firewall Install is a version of GitHub you can install behind a corporate firewall. With your own internal GitHub you can combine the best aspects of social code management with the security of your private network.
HITSS	Headquarters Information Technology Support Services
HP ES	Hewlett Packard Enterprise Services
HSPD	Homeland Security Presidential Directive, mandating a federal standard for secure and reliable forms of identification
IaaS	Infrastructure as a service – for NASA, one example is Nebula (see Nebula below)
IATO	Initial Authorization to Operate
IATT	Initial Authorization to Test
ICAM	Identity Credential Access Management
ICE	Integrated Collaborative Environment
IDAMS	IT Discovery and Mapping Systems
IDS	Intrusion Detection System
IPAM	Internet Protocol (IP) Address Management
IPv6	Internet Protocol (IP) version 6; replaces version 4 for numerous reasons including scalability
IREC	Information Risk Executive Council
IRM	Information Resources Management
IT	Information Technology
IT Talk	A periodic publication of the NASA OCIO
ITIL (v3)	Information Technology Infrastructure Library, currently at version 3, or v3
ITOH	Information Technology Operations Handbook
ITSATC	IT Security Awareness and Training Center
ITSEC-EDW	IT Security Enterprise Data Warehouse
ITSM	IT Security Manager
KPI	Key Performance Indicator
N2CMS	NICS Consolidated Configuration Management System
NACA	National Advisory Committee for Aeronautics
NAMIS	NASA Aircraft Management Information System
NARA	National Archives and Records Administration
NASA	National Aeronautics and Space Administration
NCAD	NASA Consolidated Active Directory
NDC	NASA Data Center
Nebula	NASA's internal private cloud computing environment
NEFS	NASA Electronic Forms System
NEFWG	NASA Electronic Forms Working Group
NFS	NASA FAR Supplement
NITS	NICS Incident Tracking System
NOC	Network Operations Center
NODIS	NASA Online Directives Information System
NOMAD	NASA Operational Messaging and Directory Service
NPD	NASA Policy Directive
NPR	NASA Procedural Requirements

NSAAR	NASA Security Assessment and Authorization Repository
NSOFS	NICS Service Order Fulfillment System
ODIN	Outsourcing Desktop Initiative for NASA; predecessor to ACES
OMB	Office of Management and Budget
OpenGov	Open Government is a national initiative that supports efforts to promote more transparent, effective, and accountable government institutions
OSC2	OCIO Strategic Communications Committee
PIA	Privacy Impact Assessment
PIC	Procurement Information Circular
PIV	Personal Identity Verification
PKI	Public Key Infrastructure, a set of hardware, software, people, policies, and procedures needed to manage digital certificates, such as for electronic signature
PM	Program/Project Manager
PMO	Program/Project Management Office
POA&M	Plan of Actions and Milestones
RHoK	Random Hacks of Kindness
ROI	Return on Investment
RSA	The Security Division of EMC that offers the SecurID tokens currently used by NASA
SAIC	Science Applications International Corporation; provides contracted support to NASA
SBU	Sensitive but Unclassified data; being renamed to Controlled Unclassified Information (CUI)
SDLC	Software Development Life Cycle
SEI	System Engineering and Integration
SIM	Service Integration Management
SLA	Service Level Agreement
SLI	Service Level Indicators
SMD	Science Mission Directorate
SOC	Security Operations Center
SORN	System of Record Notice
SSPP	NASA's Strategic Sustainability Performance Plan
STD	A NASA Standard
STI	Scientific and Technical Information program
SWOT	Analysis model that focuses on defining Strengths, Weaknesses, Opportunities and Threats
TIC	Trusted Internet Connection (DHS)
US-CERT	United States Computer Emergency Readiness Team
VPN	Virtual Private Network
VTs	Virtual Team Service, a collaboration tool
WASP	Web Application Security Program
WYE	Work Year Estimate, for estimating contractor labor
XWIN	X-win product for Windows computers from StarNet Communications
Yammer	A social networking tool for enterprises used by NASA